

**KV-X2131D**  
**RM-689**

# SERVICE MANUAL

**AEP Model**  
Chassis No. SCC-D51A-A



**AE-1B CHASSIS**

Note: The service manual for RM-689 has been issued separately.

| MODELS OF THE SAME SERIES |  |
|---------------------------|--|
| KV-X2131D                 |  |
| KV-X2131B                 |  |

## SPECIFICATIONS

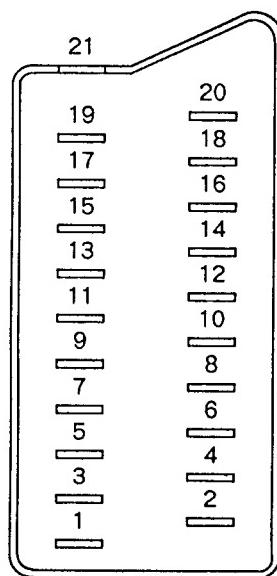
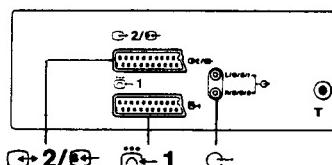
|                   |  |  |   |
|-------------------|--|--|---|
| Television system | B/G/H  | Sound output   | 15 W + 15 W (music power)                                       |
| Color system      | PAL, SECAM, NTSC3.58, NTSC4.43   | Power consumption  | 87 Wh   |
| Channel coverage  | VHF : E2-E12 UHF : 21-69<br>CABLE : S1-S41   | Dimensions   | Approx. 530x438x473 mm (w/h/d)                                  |
| Picture tube      | Trinitron tube<br>Approx. 54.5 cm (21 inches)<br>(Approx. 51 cm picture measured diagonally<br>110-degree deflection)  | Weight   | Approx. 24.5 kg   |
| Inputs            | ④ 1 21-pin connector :<br>CENELEC standard including RGB input.<br>④ 2 21-pin connector :<br>including S video input<br>④ 3 Video, Audio : phono jack.                                       | Supplied accessories   | RM-689 Remote Commander (1)<br>IEC designation R6 batteries (2) |
| Outputs           | 21-pin connector : CENELEC standard<br>Headphones jack : stereo minijack<br>External speaker terminals : 2-pin DIN<br>Audio output jacks : phono jack (output<br>dependent upon TV settings) | Design and specifications are subject to change<br>without notice. |   |

**TRINITRON® COLOUR TV**  
**SONY®**



MICROFILM

## 21 pin connector (G-1, G-2)



| Pin No | 1 | 2 | Signal                                 | Signal level  |
|--------|---|---|--|---|
| 1      | ○ | ○ | Audio output B (right)                 | Standard level : 0.5Vrms<br>Output impedance : Less than 1kohm*   |
| 2      | ○ | ○ | Audio input B (right)                  | Standard level : 0.5Vrms<br>Input impedance : More than 10kohms*  |
| 3      | ○ | ○ | Audio output A (left)                  | Standard level : 0.5Vrms<br>Output impedance : Less than 1kohm*   |
| 4      | ○ | ○ | Ground (audio)                         |   |
| 5      | ○ | ○ | Ground (blue)                          |   |
| 6      | ○ | ○ | Audio input A (left)                   | Standard level : 0.5Vrms<br>Input impedance : More than 10kohms*  |
| 7      | ○ | ● | Blue input                             | 0.7V±3dB, 75ohms, positive  |
| 8      | ○ | ○ | Function select (AV control)           | High state (9.5–12 V) : Part mode<br>Low state (0–2 V) : TV mode<br>Input impedance : More than 10kohms<br>Input capacitance : Less than 2 nF |
| 9      | ○ | ○ | Ground (green)                         |   |
| 10     | ○ | ○ | Open                                   |   |
| 11     | ○ | ● | Green                                  | Green signal : 0.7V±3dB,<br>75ohms, positive  |
| 12     | ○ | ○ | Open                                   |   |
| 13     | ○ | ○ | Ground (red)                           |   |
| 14     | ○ | ○ | Ground (blanking)                      |   |
| 15     | ○ | — | Red input                              | 0.7V±3dB, 75ohms, positive  |
|        | — | ○ | (S signal) chroma input                | 0.3V±3dB, 75ohms, positive  |
| 16     | ○ | ● | Blanking input (Y <sub>s</sub> signal) | High state (1–3 V)<br>Low state (0–0.4 V)<br>Input impedance : 75ohms   |
| 17     | ○ | ○ | Ground (video output)                  |   |
| 18     | ○ | ○ | Ground (video input)                   |   |
| 19     | ○ | ○ | Video output                           | 1V±3dB, 75ohms, positive<br>Sync : 0.3V (-3, +10dB)   |
| 20     | ○ | — | Video input                            | 1V±3dB, 75ohms, positive<br>Sync : 0.3V (-3, +10dB)   |
|        | — | ○ | Video input/Y (S signal)               | 1V±3dB, 75ohms, positive<br>Sync : 0.3V (-3, +10dB)   |
| 21     | ○ | ○ | Common ground (plug, shield)           |   |

○ connected     ● unconnected (open)

\* at 20 Hz–20 kHz

## WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

## SAFETY-RELATED COMPONENT WARNING !!

## COMPONENTS IDENTIFIED BY SHADING AND MARK

⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

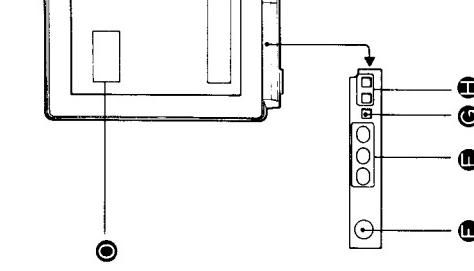
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# SECTION 1

## GENERAL

### 1-1. FUNCTION OF CONTROLS



#### ON THE SET

**A Power Switch** Use it to switch the set on and off. When you switch the set on, the programme number of the station tuned in will be indicated in the on-screen display for some seconds. In case of short breaks of operation, you can switch the set on and off using the Remote Commander (See «CONTROLS ON THE REMOTE COMMANDER»).

**B Remote control detector** (See «CONTROLS ON THE REMOTE COMMANDER»).

**C Standby/Response indicator** This indicator lights up when the TV set is in standby mode and it flashes each time the set receives signals from the Remote Commander.

**D Stereo A/B indicators** During bilingual programmes one of the two indicators lights up, depending upon the selected channel **A** or **B**. When stereo programmes are broadcast both indicators light up. (See «CONTROLS ON THE REMOTE COMMANDER»).

#### JACKS AND CONTROL PANEL

The jacks and the control panel are situated behind a cover. Please press the arrow marking on the cover to open it.

**E Headphones jack (stereo minijack)** Connect only stereo headphones.

**F Input jacks** Video input jack (phono jack) (yellow), Audio input jacks (phono jacks) L/G/S/I and R/D/D/D (red and white).

**G Euro-AV-connector 21-pin** For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.

**H Euro-AV-connector 21-pin** For connecting a VTR, a computer etc. with RGB output.

**I Adjustment buttons +/−** Select at first the item to be adjusted using the Mode select button **G** (**P**: channel select mode), (volume) or (input mode), then adjust the item by pressing the **+** or **-** button. You can also use these buttons to reset the picture and sound adjustments to the factory-set levels. For this purpose press both buttons simultaneously.

**J On-screen display** On the Remote Commander, the following information will be indicated on the screen in turn.

**K Picture and sound adjustment items:**

contrast, brightness, hue (only for NTSC), bass, balance and the respective levels; as well as mute, volume, space, loudness indications, when the respective buttons are pressed.

**L** When you press button on the Remote Commander, the following information will be indicated on the screen:

**M** When you press button on the Remote Commander, the following information will be indicated on the screen:

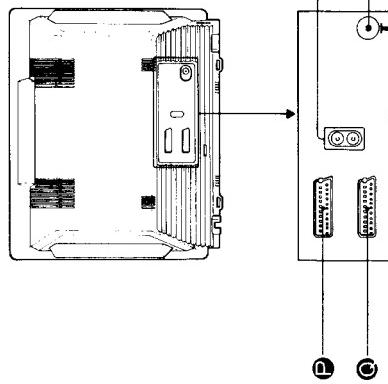
**N** Indication of the station name  
**O** AV output indication: 1 2 3 4 or 5 (see «CONTROLS ON THE REMOTE COMMANDER»).

#### CONNECTORS ON THE REAR

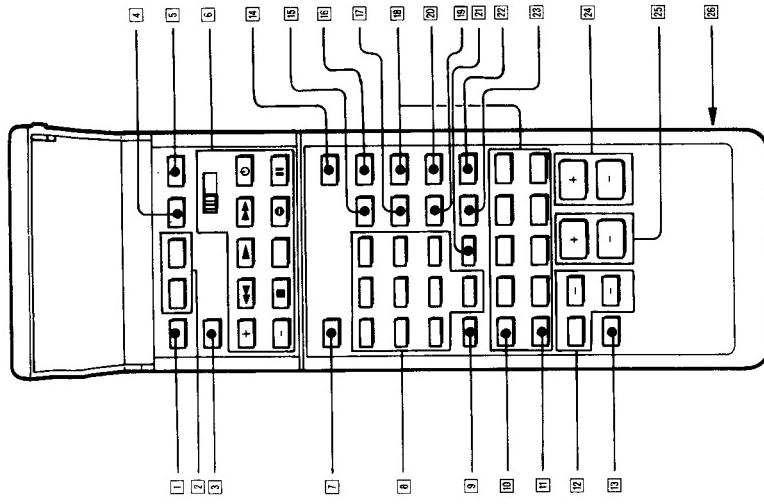
**P** Euro-AV-connector 21-pin For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.

**Q** Audio-output-jacks (phono jacks) For connecting audio equipment, e.g. an amplifier, so that the sound will be output at the audio equipment. In this case the volume is adjustable on the TV set.

**R** Aerial terminal For connecting an aerial or a cable television system.



## ON THE REMOTE COMMANDER



**4** ◇ **Store button:** Used for storing channels. See "TO PRESET CHANNELS".

**5** ⓧ **TV-system-select button:**  
This button has no function.

**6** **Video selector and video operation buttons:**  
Used for operating Sony video equipment. For details see "CONNECTING OTHER EQUIPMENT".

**7** ⓧ **Mute button:**  
By pressing this button the sound of the set will be switched off and by pressing it once more the sound will be restored.

**8** **Number buttons:**

- Used to select programme positions or to input channel numbers in the preset mode).
- If the set is in the standby mode, press one of the number buttons to switch it on.
- After pressing the Output select button (7) the buttons 1-3 can be used to select the different Output connectors.

**9** ⓧ  **+/- Button:**

In case of two digit numbers, press first this button and then the two respective number buttons (8).

**10** ⓧ **Button for On-screen display:**

By pressing this button information about the station tuned-in will be indicated on the screen. The indications will disappear after some seconds with the exception of the programme number, which will stay on the screen until the button is pressed once again.

**11** ⓧ **Time button (⌚):**

In TV-mode: If teletext service is broadcast on the selected channel, press this button to display the current time on the screen and once again to make it disappear.

**12** **+/- Buttons for picture and sound adjustments:**

- TV-mode:**  
The picture and sound adjustments are stored as standard values. You have, however, the possibility to change them to your individual liking. Press the button repeatedly until the required item is indicated in the on-screen display. ⓧ contrast, ⓧ colour, ⓧ brightness, ⓧ hue (only for NTSC colour system), ⓧ sharpness, ⓧ bass, ⓧ treble or ⓧ balance. You can adjust the settings by pressing the + or - button.
- Preset-mode:** Use these buttons to name a station. See "TO PRESET CHANNELS".

**13** ⓧ **Reset button:**

By pressing this button the picture and sound adjustments are reset to the factory-set levels.

**14** ⓧ **Standby-button:**

Press this button to switch the set into standby-mode. You can switch it on again by pressing the TV-button (6) or one of the number buttons (5). To return to the teletext mode, press the ⓧ (18) button. There will be a slight delay before the picture is restored.

**15** ⓧ **Input-Select-Button:**

Press this button to select the audio- or video-signals input at the various input connectors. With each pressing of the button a different connector is selected. The following indications will appear sequentially:  
1 → ⓧ (RGB) → ⓧ 2 → ⓧ 3 → ⓧ 3

**16** ⓧ **TV-Button:**

When pressing this button the set returns from standby, video input- or teletext mode to the TV-mode.

**17** ⓧ **Output-Select-Button:**

Press this button to select the audio- or video signals to be output at the ⓧ/RGB connector. First press this button, then select the desired signal source using the number buttons (5) (either 1, 2 or 3) or the TV-button (6) (if the signals which are on the screen are to be output).

**18** **Teletext operation buttons:**

These buttons are used for teletext operation. See "VIEWING TELETEXT".

**19** ⓧ **Loudness button:**

By pressing this button the high and low tones will be emphasized. Press the button again to restore the normal sound. The indications on the screen will be ⓧ or ⓧ.

**20** ⓧ **A/B button:**

To select the channel of bilingual programmes. Usually the synchronised version is broadcast on channel A and the original sound is broadcast on channel B. In the video input mode (Euro-AV-connectors) this possibility of selecting channels also exists.

**21** ⓧ **C (Channel select) button:**

Use this button for direct channel tuning in the TV-mode. See "ADDITIONAL FUNCTIONS".

**22** ⓧ **Noise reduction button:**

Press to reduce the noise on the picture. The Noise reduction indicator (D) lights up. Press the button again to restore the normal picture.

**23** ⓧ **Space sound button:**

Press this button to obtain special acoustic effects. Press it again to restore the normal sound. The indications on the screen will be ⓧ or ⓧ.

**24** **PROGR +/- buttons:**

Press these buttons to scan the available programmes up- or downwards.

Preset mode: Use these buttons to scan the available channels up or downwards.

**25** **+/- buttons for adjusting the volume:**

**26** **Battery compartment (on the rear):**

**Note**  
Use the Standby-button (H) only when switching the set off for a short period of time. If the set will not be used for a longer span of time, switch it off by using the Power switch (A).

## 1-2. TO PRESET CHANNELS

Use the buttons on the Remote Commander for presetting. In total there are 80 programme positions at your disposal for storing channels.

There are two different ways of tuning in channels:

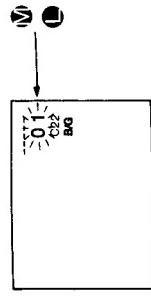
### 1. Direct Channel Tuning

You know the channel number of a station and can input it directly.

### 2. Automatic Station Search

The set searches automatically for stations (including cable channels).

3. Press button **C 2**. The indication „C“ and the channel number start blinking in the display **V**. Select the channel number with two digits (e.g. 22) using the number buttons **④**.



**Skipping of unused programme positions**  
Using button **C 2** you have the possibility to have unused programme positions (e.g. without a stored station) skipped, when pressing the buttons PROGR +/− **②** on the Remote Commander.

1. Press button **①**. You are now in the preset mode of the set.

2. Use the buttons PROGR +/− **②** to select the programme position, which you want to have skipped.

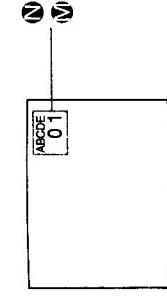
3. Press button **C 2** **③**.

4. Press button **④** to store the cleared programme position and to return to the TV-mode.

The skipped programme positions still appear when you press the number buttons **④** on the Remote commander.

If you want to select a cable channel press button **C 2** twice. In this case the indication „S“ will appear in the display **V**. Select the channel number as described above.

4. Press the button **④** in order to store the channel and to return to the TV-mode.



Automatic Station Search  
Button **C 2**      Button **C 2**      Button **④**      Button **④** + 0 − **②**

Direct channel tuning      Button **C 2**      Button **④**      Number buttons **④**      e.g. 09

Cable channels press button **C 2** twice      Button **④**      Storing

TV-mode

1. **Direct Channel Tuning**  
1. Press the Preset button **①**. You are now in the preset mode of the set. The programme number in the on-screen display **V** starts blinking.

If you want to store further channels, repeat the steps 1 to 4.

### 2. Automatic Station Search

1. Press button **①**. You are now in the preset mode of the set. The programme number in the on-screen display **V** starts blinking.

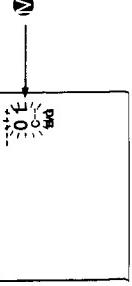
2. With the PROGR buttons +/− **②** or the number buttons **④** you can select the programme position. In case of two-digit numbers, press the first button **−/−** **③** and then the two number buttons.

2. With the buttons PROGR +/− **②** or the number buttons **④** you can select the programme position. In case of two-digit numbers, press first the button **−/−** **③** and then the two number buttons.

3. If there is already a stored station on the selected programme position, press button **C 2**.

4. Press one of the tuning buttons **④** +/− **②** to start the station search. The search will be interrupted as soon as a station is tuned in. Press the tuning buttons repeatedly until you find the desired station.

5. If you have found the desired station, press button **①**. Now the selected station is stored and you are back in the TV-mode.



6. If you want to store further stations, repeat the steps 1-5.

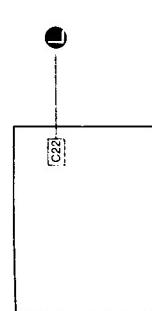
## ADDITIONAL FUNCTIONS

### Direct Channel Tuning in the TV-mode

You have the possibility to tune in channels directly when the set is in the TV-mode without storing these channels. Example: You tune in channel number 22. If you switch the set off or change the programme position, this channel will be cancelled.

1. Press the button **C 2**. In the display **V** the indication „C“ will appear. For cable channels press the button **C 2** twice. On the screen „S“ will be displayed.

2. Select the channel number with two digits using the number buttons **④** (e.g. for channel 4 press first 0, then 4). The indication on the screen „S“ will disappear within some seconds.



### Manual Fine Tuning

If the reception of a channel is not satisfactory, you have the possibility to deactivate the Automatic Fine Tuning, which is usually in operation during presetting in order to tune in the best possible picture. Press one of the tuning buttons **④** +/− **②** to fine-tune a channel. The Automatic Fine Tuning will be restored when the respective programme position is pressed once again.

1. Press the preset button **①**.

2. Press the button **②**. The first column of the station name starts blinking. Press either button + or − **②** and select the desired character (number or letter, 0-9, A-Z, or − for a blank column).

3. Press button **②** again. Now the second column starts

blinking and you can select the second character.

In this way five characters can be selected.

4. Press button **①** to store the station name.



### Notes

- If you press the preset button **①** instead of button **②** the set will return to the TV-mode without storing the channels.
- If you press a wrong programme or a channel number, an „xx“ will be displayed on the screen.
- When pressing two number buttons, the second number button should be pressed within 5 seconds after the first one, otherwise the operation will be cancelled.

### 1.3. VIEWING TELETEXT

To view the teletext service, use the Remote Commander.  
The buttons for teletext operation are indicated in green.

#### Operation

- 1 Select the TV channel for the desired teletext service. When the signal is weak, teletext errors often occur.
- 2 Press  $\text{S} / \text{P}$  (TEXT/MIX) to display the teletext service.
- 3 Key in the three digits of the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.

The requested teletext page is displayed.

#### To request the index page

Press  $\text{I}$  (INDEX). If the necessary signal is not being broadcast, page 100 is displayed.

#### To access the next or preceding page

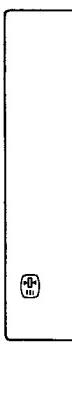
Press  $\text{E} / \text{PAGE} +$  or  $\text{D} / \text{PAGE} -$ .

#### To superimpose the teletext display on the picture

Press  $\text{S} / \text{P}$  twice from the TV mode. Press  $\text{S} / \text{P}$  again to return to the TEXT display.

#### To prevent a teletext page from being updated/changed

To resume normal teletext reception, press  $\text{S} / \text{P}$  (TEXT/MIX).



P101  
T \* \* \* \*

To resume normal teletext reception, press  $\text{S} / \text{P}$ .

#### To enlarge the teletext display

Press  $\text{S} / \text{P}$  once to enlarge the upper half of the display; press again to enlarge the lower half of the display. And press again to return to the normal display.

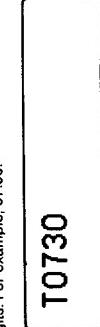
#### To reveal concealed information such as answers to a quiz

Press  $\text{E}$  (REVEAL).

#### To watch the TV programme while waiting for a requested page to be displayed

1 Request the new page.

- 1 Request a time coded page (e.g. alarm page).  
2 Press  $\text{S} / \text{P}$  (TP ON).  
"T \* \* \* \*"
- 3 Enter your request time with the number buttons, using four digits. For example, 07.30.



To watch the TV programme until the requested time, press  $\text{S} / \text{P}$  (TEXT CL). At the requested time, the page number will be displayed at the bottom of the screen.

To view this page, press  $\text{S} / \text{P}$ .

#### To cancel the request, first ensure that the teletext page is displayed, then press $\text{S} / \text{P}$ (TP OFF).

### 1.4. OPERATING OTHER EQUIPMENT

**To view the input picture**  
Press the  $\text{S} / \text{P}$  button repeatedly until the desired input signal indication appears on the screen.

$\text{S}-1$ : to view the audio and video signal input through the  $\text{S}-1$  connector on the rear.

$\text{S}-1$ : to view the RGB signal (i.e. from a computer, etc.) input through the  $\text{S}-1$  connector.

$\text{S}-2 / \text{E}$ : to view the audio and video signal input through the  $\text{S}-2 / \text{E}$  connector on the rear.

$\text{S}-2$ : to view the S-video signal (from a VTR equipped with an S-video output) input through the  $\text{S}-2 / \text{E}$  connector.

$\text{S}-3$ : to view the audio and video signal input through the  $\text{S}-3$  connectors and the audio input jacks (yellow, white and red) on the front.

$\text{S}-3$ : to view the S video signal input through the  $\text{S}-3$  connectors on the front (4-pin connector and white and red phone jacks).

You can also select the desired input mode using the buttons on the front of the set. Select the  $\text{S}$  mode with the mode select ( $\text{P} \rightarrow \text{A} \rightarrow \text{S}$ ) button  $\text{C}$  then press  $+/-$  button.

To return to the TV mode, press the TV-button.

**To select the signal to be output from the  $\text{S} / 2 / \text{E}$ - connector**  
Press the  $\text{S} / \text{P}$  button  $\text{D}$  repeatedly until the desired output source is indicated on the screen:

$\text{S}-1$ : The audio and video signal input through the  $\text{S}-1$  connectors is output from the  $\text{S}-1$  connector.

$\text{S}-2$ : The audio and video signal input through the  $\text{S}-2 / \text{E}$ - connector is output from the  $\text{S}-2 / \text{E}$  connector.

$\text{S}-3$ : The audio and video signal input through the  $\text{S}-3$  connectors is output from the  $\text{S}-3 / \text{E}$ - connector.

$\text{TV} \text{S}$ : The audio and video signal input through the  $\text{TV} \text{S}$  serial terminal (i.e. usually the TV signal) is output from the  $\text{TV} \text{S} / \text{E}$ - connector.

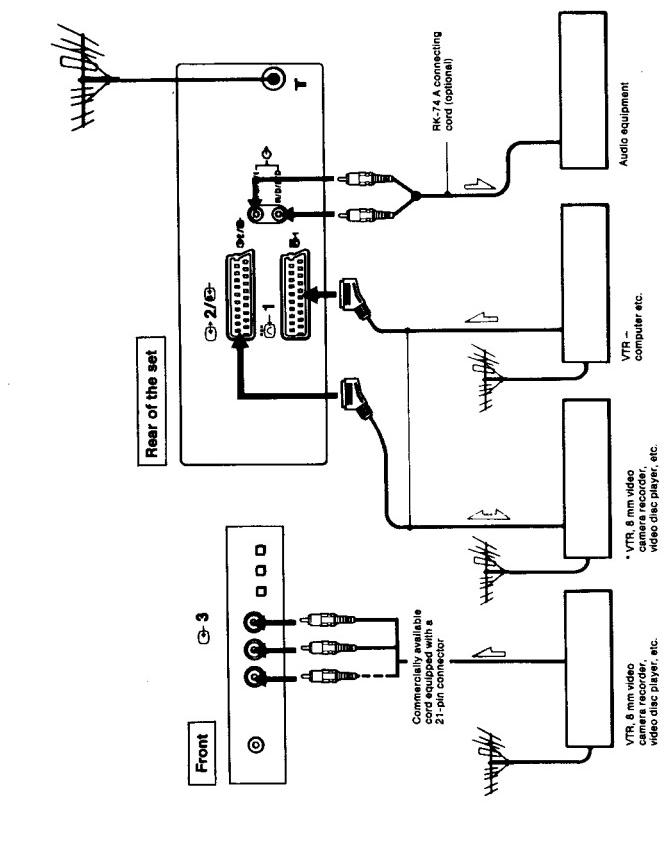
The indication will disappear after a few seconds.

#### Note

The TV-signal is always output at the EURO-AV connector  $\text{S}-1$ .

## 1-5. CONNECTING OTHER EQUIPMENT

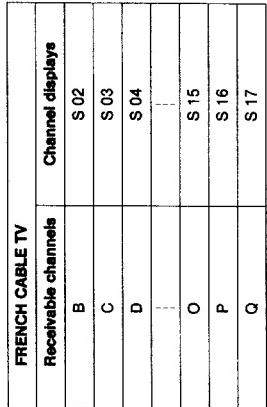
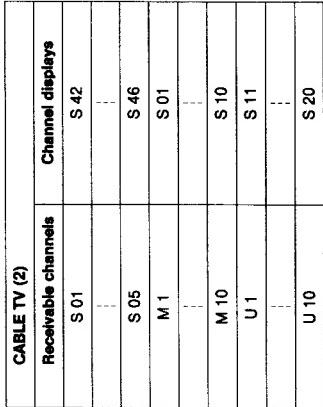
## 1-6. RECEIVABLE CHANNELS AND CHANNEL DISPLAY



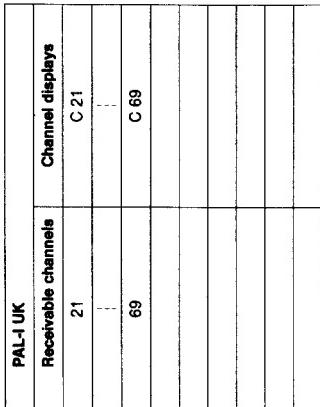
Signal flow

| <b>ITALY</b> | <b>Receivable channels</b> | <b>Channel displays</b> |
|--------------|----------------------------|-------------------------|
|              | A                          | C 13                    |
|              | B                          | C 14                    |
|              | C                          | C 15                    |
|              | D                          | C 16                    |
|              | E                          | C 17                    |
|              | F                          | C 18                    |
|              | G                          | C 19                    |
|              | H                          | C 20                    |
|              | H <sub>1</sub>             | C 11                    |
|              | H <sub>2</sub>             | C 12                    |

| PAL/B/G | Receivable channels | Channel displays |
|---------|---------------------|------------------|
|         | E 2                 | C 02             |
|         | 3                   | C 03             |
|         | 4                   | C 04             |
|         |                     |                  |
|         | 12                  | C 12             |
|         | 21                  | C 21             |
|         |                     |                  |
|         | 69                  | C 69             |
|         |                     |                  |



| FRENCH SECAM-L |    | Receivable channels | Channel displays |
|----------------|----|---------------------|------------------|
|                | 2  | C 02                |                  |
|                | 3  | C 03                |                  |
|                |    |                     |                  |
|                | 10 | C 10                |                  |
|                | 21 | C 21                |                  |
|                |    |                     |                  |
|                | 69 | C 69                |                  |



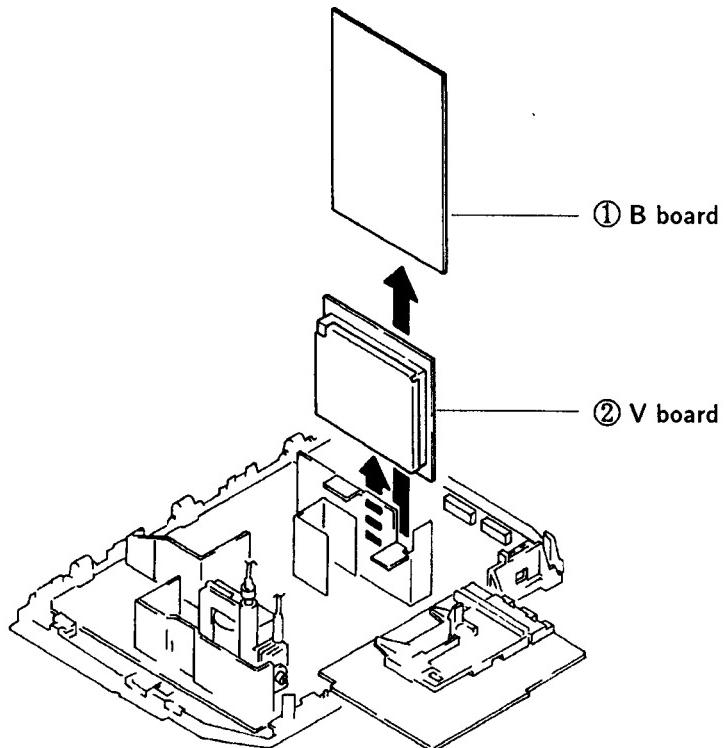
| PAL-I IRELAND        |                  |
|----------------------|------------------|
| Receiveable channels | Channel displays |
| A                    | C 01             |
| B                    | C 02             |
| C                    | C 03             |
| D                    | C 04             |
| E                    | C 05             |
| F                    | C 06             |
| G                    | C 07             |
| H                    | C 08             |
| J                    | C 09             |

- Connect the S video output of the VTR, etc. here.

**Notes**

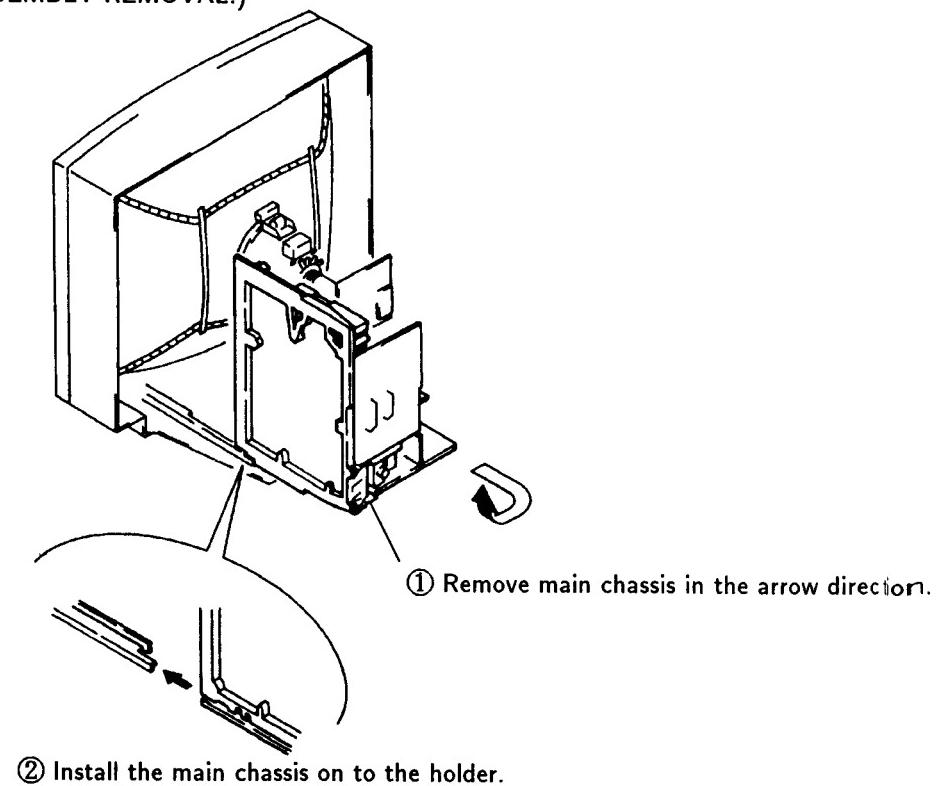
  - Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Usually these two signals are combined in a VTR and output as one signal, and supplied to a TV. Separation of the Y and C signals prevent them from interfering with one another, thereby improving picture quality (especially in luminance). This set is equipped with a S video input through which these separated signals can be input directly. Connect the S video output jack on the VTR to the S video input on this set.

## 2-4. B AND V BOARDS REMOVAL



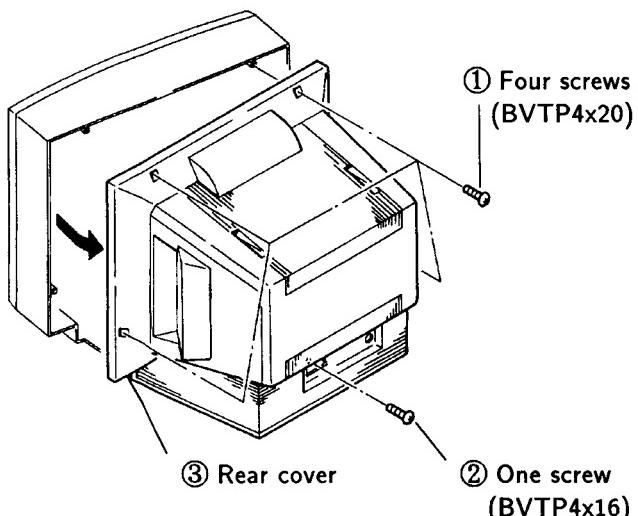
## 2-5. SERVICE POSITION

\* Remove the connector bracket and then perform the following servicing.  
(Refer to 2-2. CHASSIS ASSEMBLY REMOVAL.)



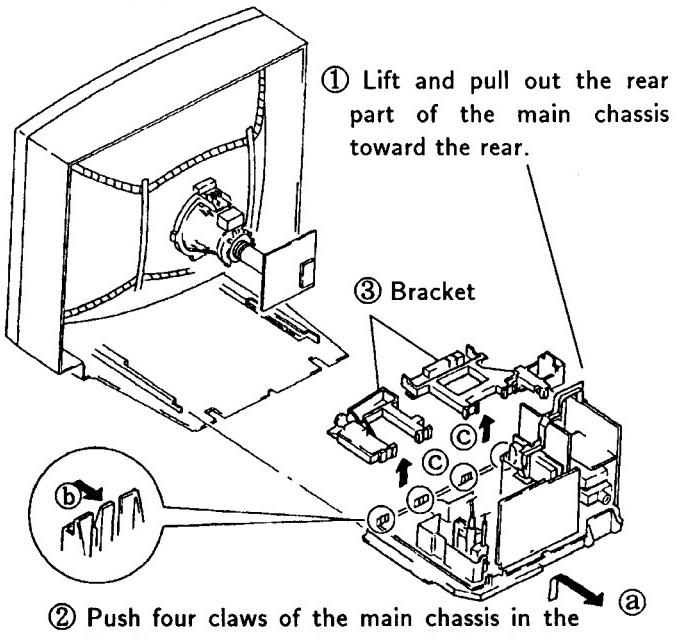
## SECTION 2 DISASSEMBLY

### 2-1. REAR COVER REMOVAL



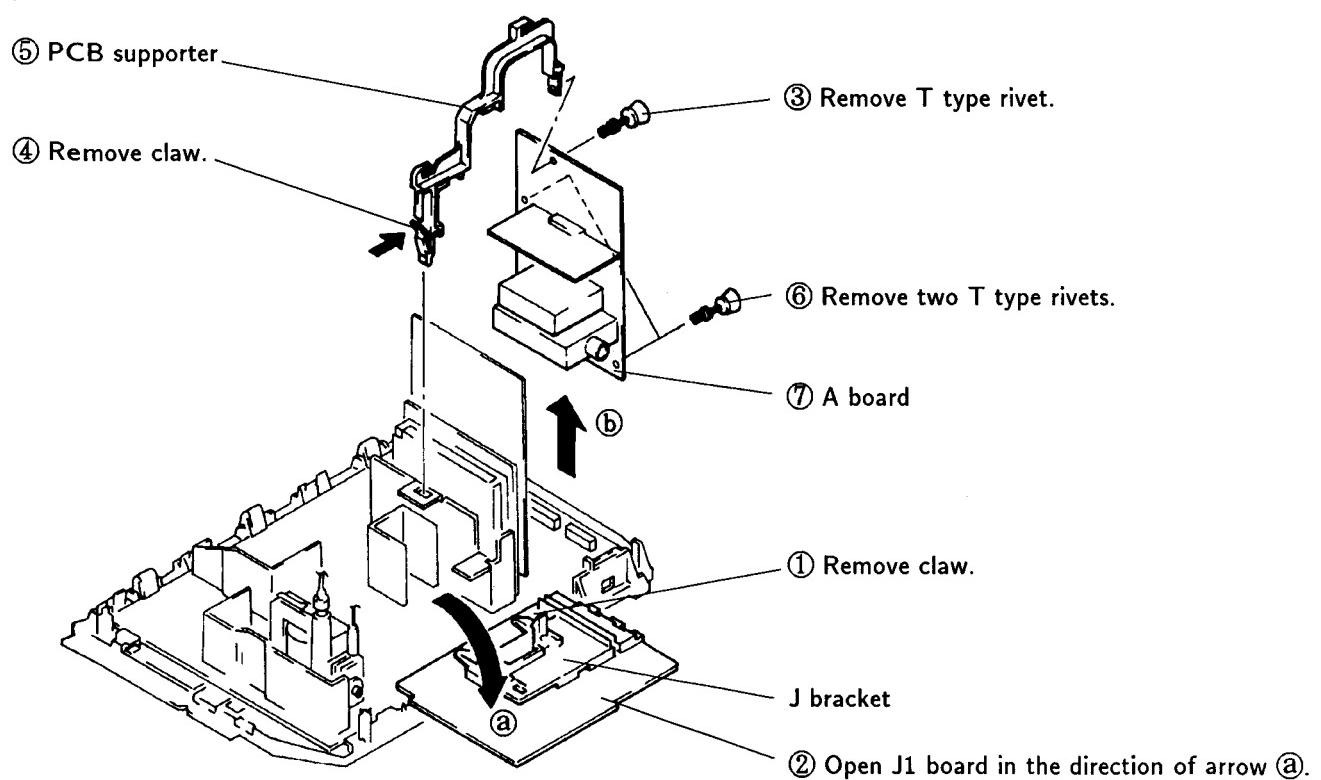
- ① Pull the rear cover and turn the right the speaker leads a fixed by the pathlock on the chassis.
- ② When attaching the rear cover for the speaker leads by pathlock.

### 2-2. CHASSIS ASSEMBLY REMOVAL

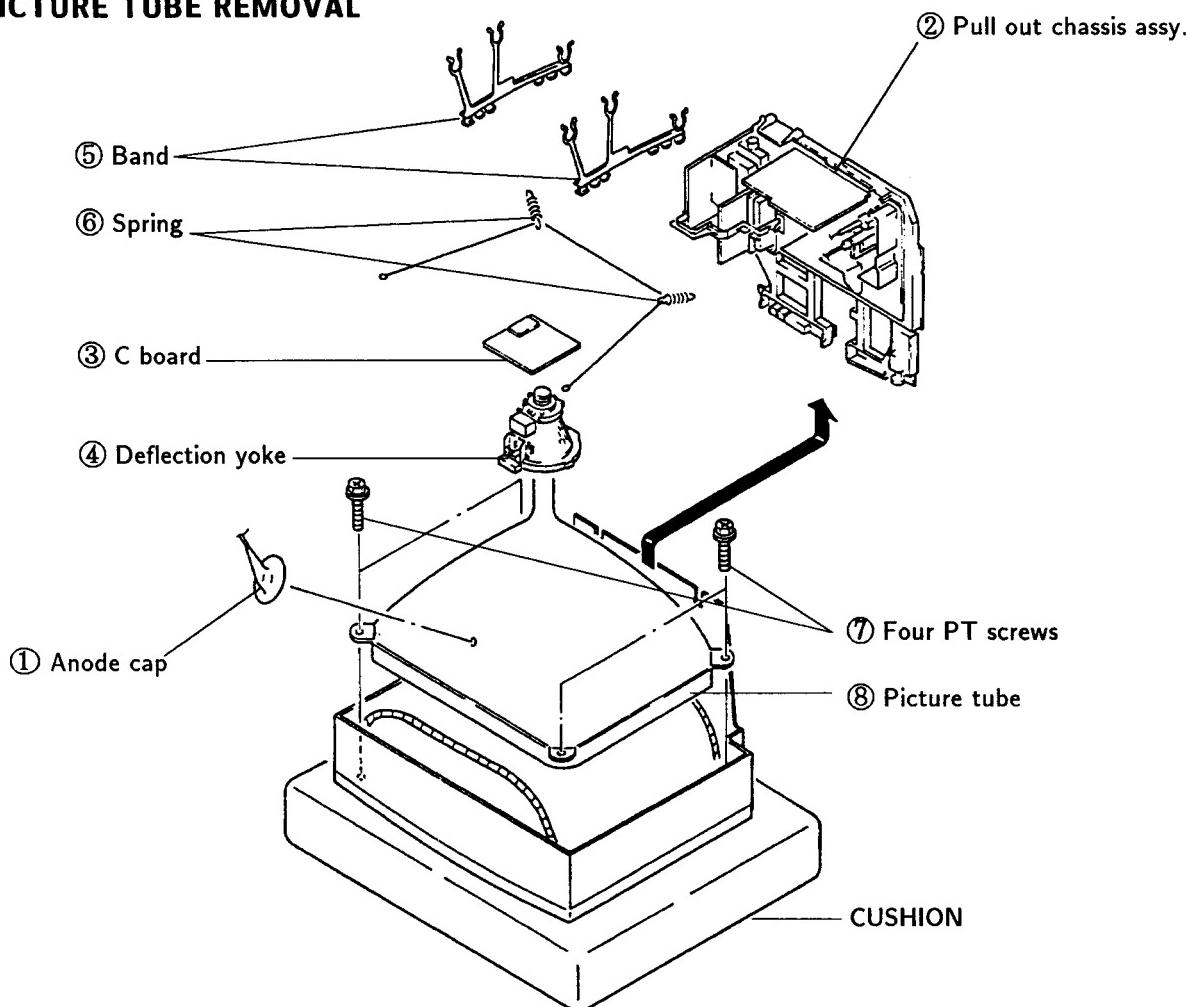


- ① Lift and pull out the rear part of the main chassis toward the rear.
- ② Push four claws of the main chassis in the direction of arrow and remove the bracket.

### 2-3. A AND J1 BOARD REMOVAL

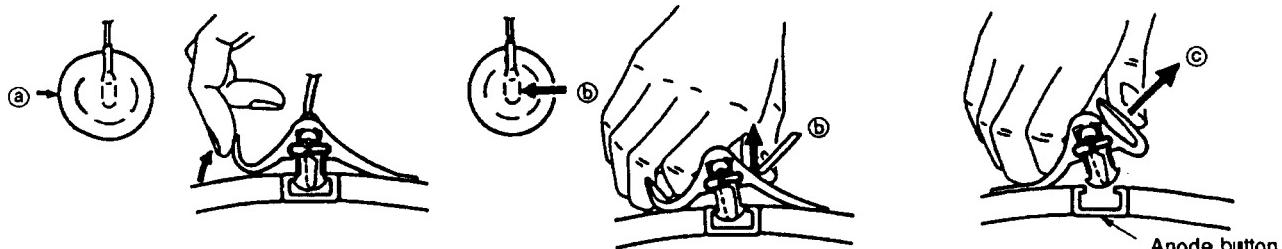


## 2-6. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP

#### • REMOVING PROCEDURES



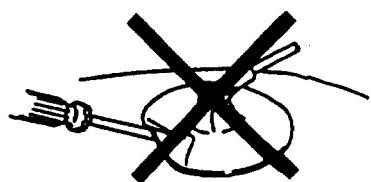
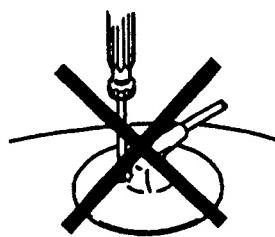
① Turn up one side of the rubber cap in the direction indicated by the arrow ②.

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ③.

③ When one side of the rubber cap is separated from the anode button, the snode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ④.

#### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.



## SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
  - Contrast ..... 80%
  - (or remote control normal)
  - Brightness ..... 50%

- Carry out the following adjustments in this order:
1. Beam landing
  2. Convergence
  3. Focus
  4. White balance

**Note:** Testing equipment required

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

### Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

### 3-1. BEAM LANDING

1. Input the white signal with the pattern generator.  
Contrast      }  
Brightness      } normal
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.  
(See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it.  
(See Figure 3-4.)

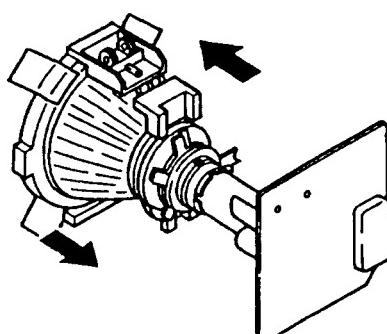


Fig. 3-1

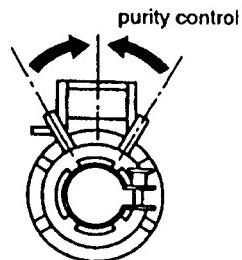


Fig. 3-2

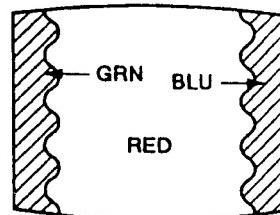


Fig. 3-3

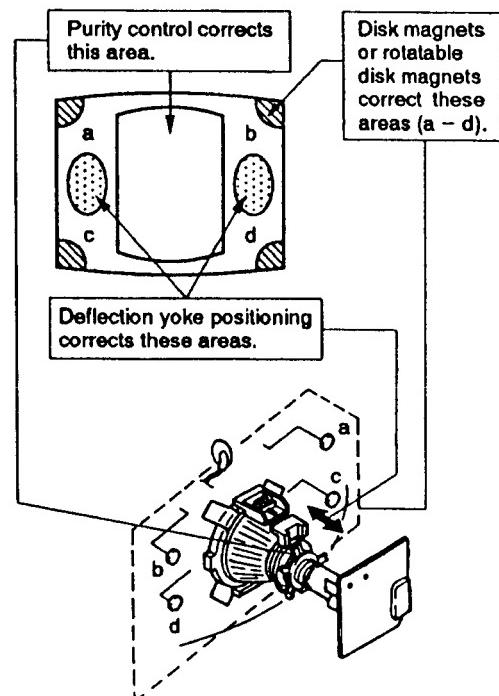


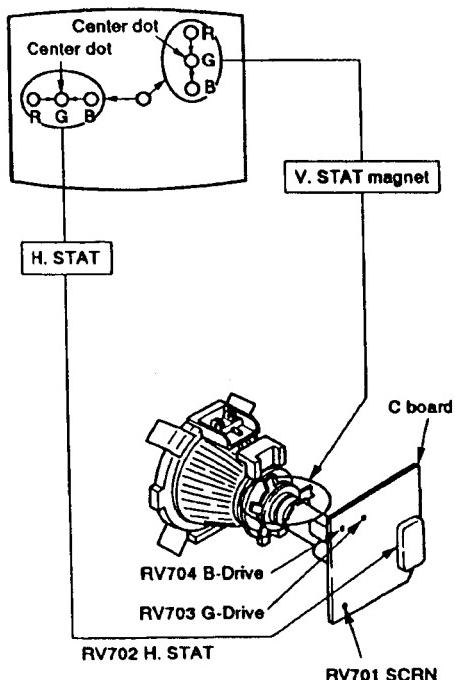
Fig. 3-4

### 3-2. CONVERGENCE

#### Preparations :

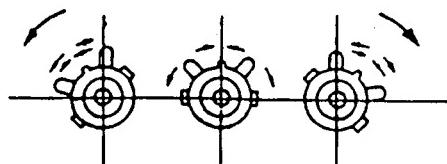
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

#### (1) Horizontal and vertical static convergence

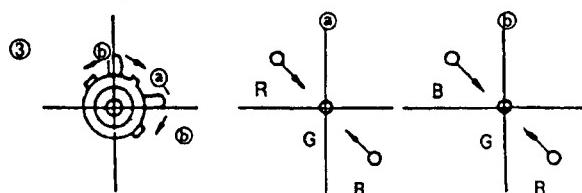
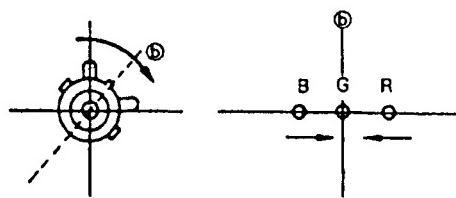
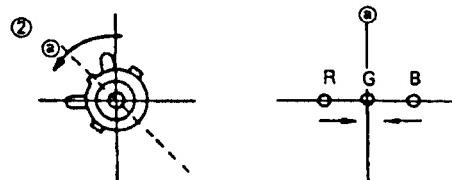
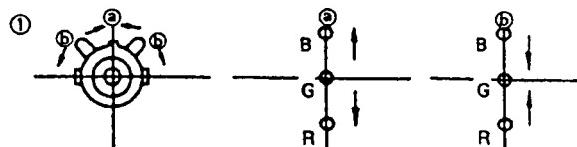


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor can not bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.  
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other's settings.)

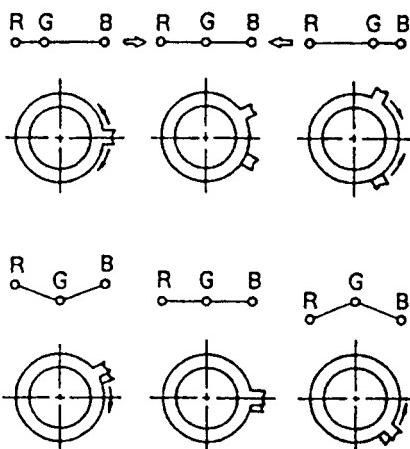
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the ② and ③ arrows, the red, green, and blue points move as shown below.

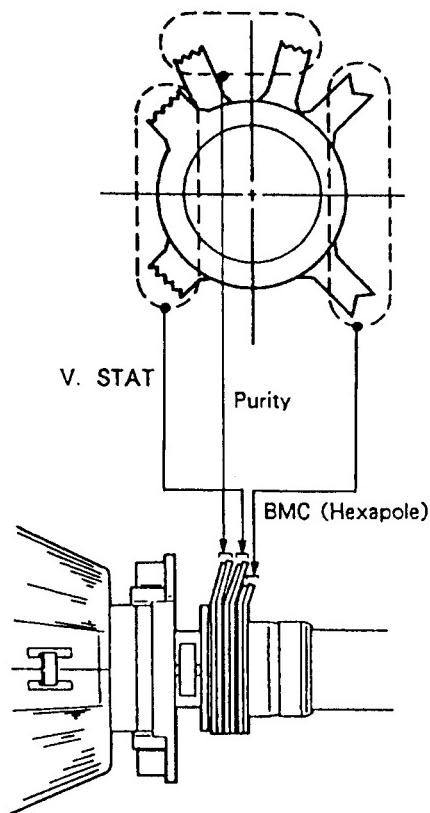


- Operation of BMC (Hexapole) Magnet



- The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.

Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).



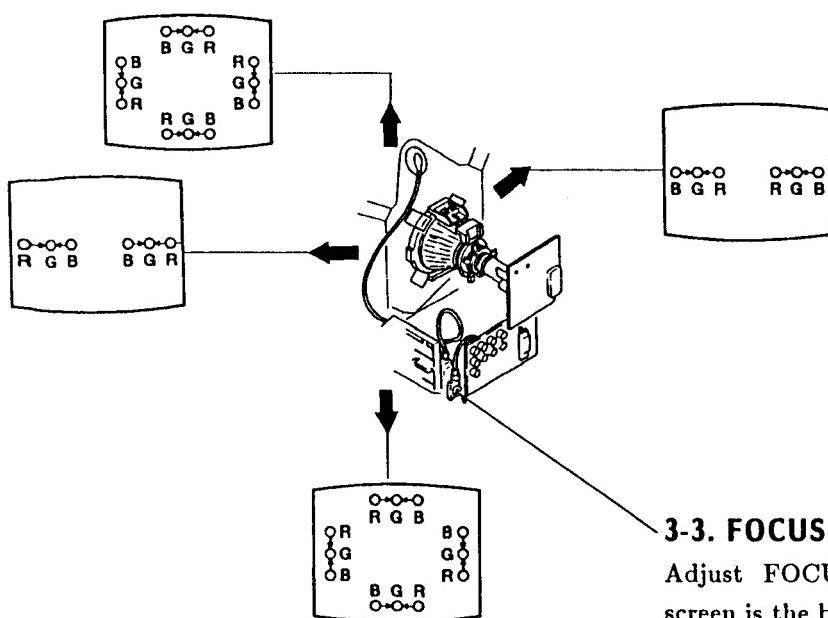
## (2) Dynamic convergence adjustment

### Preparations :

Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

- Slightly loosen the deflection yoke screws.
- Remove the deflection yoke spacer.

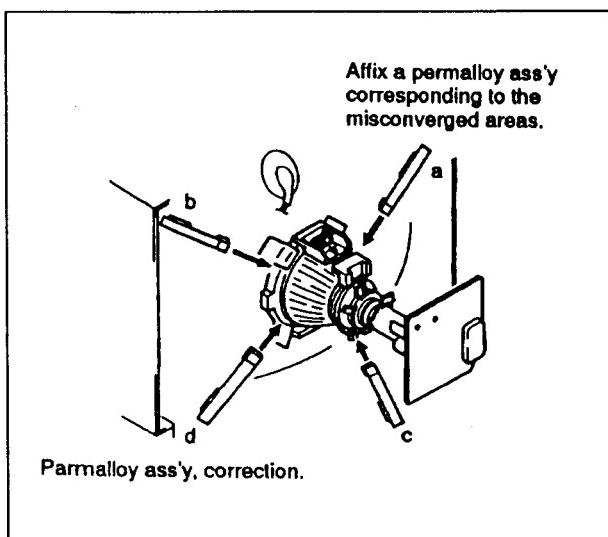
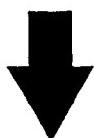
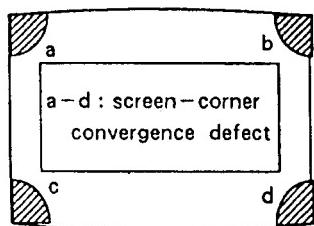
- Move the deflection yoke as shown in the figure below and optimize the convergence.
- Tighten the deflection yoke screws.
- Install the deflection yoke spacer.



### 3-3. FOCUS

Adjust FOCUS so that the whole screen is the best focus.

(3) Screen corner convergence



### 3-4. WHITE BALANCE

[ Screen G2 setting ]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

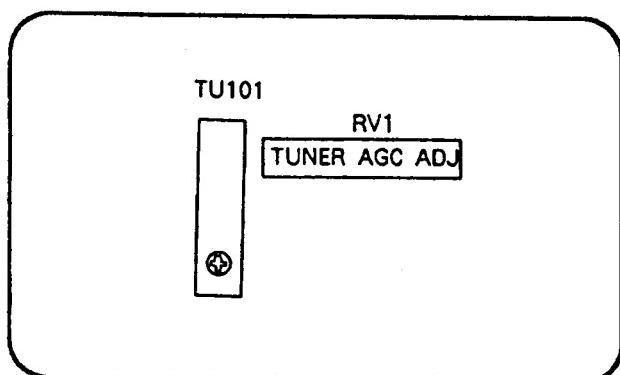
[ White balance adjustment ]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

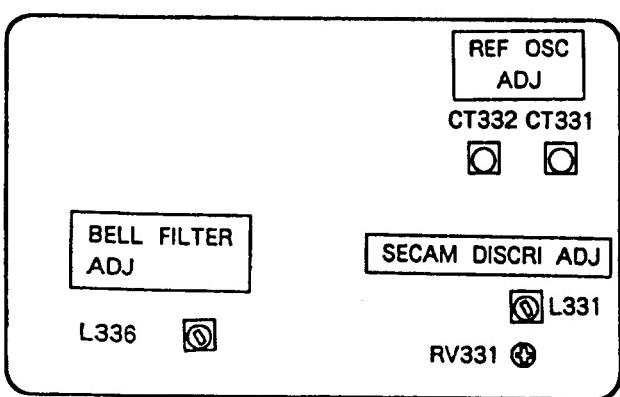
## SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. A BOARD ADJUSTMENT



(COMPONENT SIDE)

### 4-2. B BOARD ADJUSTMENTS



(COMPONENT SIDE)

#### REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8MHz)

1. Input a PAL color bar signal.
2. Ground pin ⑯ of the IC331.
3. Adjust CT332 to obtain synchronization.

#### REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16MHz)

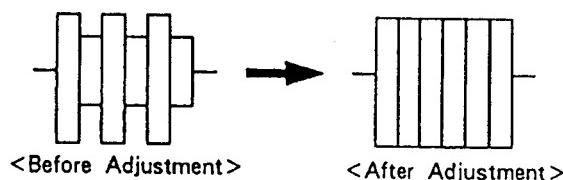
1. Input an NTSC color bar signal.
2. Ground pin ⑯ of IC331.
3. Adjust the CT331 to obtain synchronization.
4. Remove the jumper grounding pin ⑯ of IC331.

#### TUNER AGC ADJUSTMENT (VIF101, RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

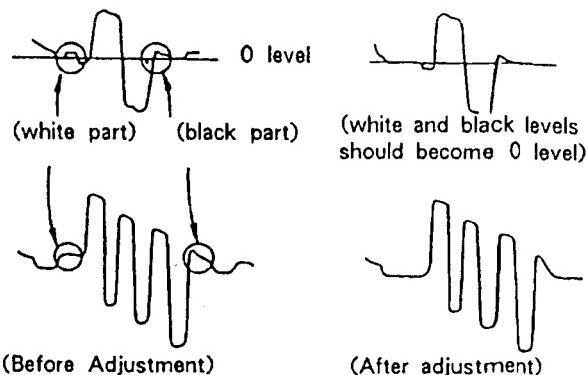
#### BELL FILTER ADJUSTMENT (L336)

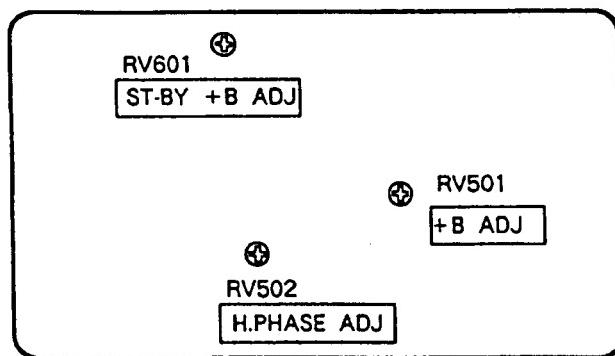
1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.



#### DISCRIMINATION ADJUSTMENT (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to pin ① of IC331.
3. Adjust RV331 so that the white and black sections of the waveform at pin ① come to the 0 level.
4. Connect the oscilloscope to pin ③ of IC331.
5. Adjust L331 so that the white and black sections of the waveform at pin ③ come to the 0 level.



**4-3. D BOARD ADJUSTMENTS****+B ADJUSTMENT (RV501)**

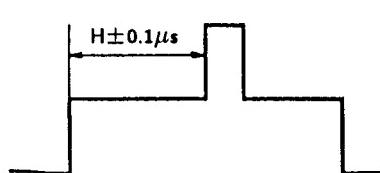
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain  $135 \pm 0.2V$ .

**ST-BY +B ADJUSTMENT (RV601)**

1. Put the system into  $\odot$  standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain  $135 \pm 3V$ .
4. Take the system out of  $\odot$  standby mode (remote commander).

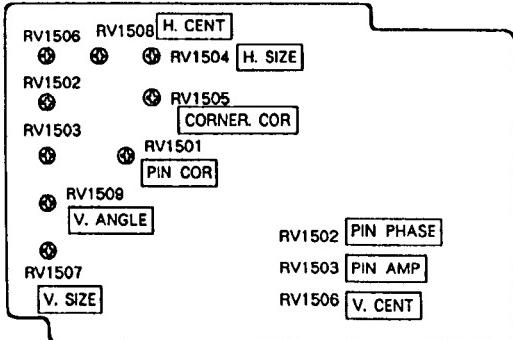
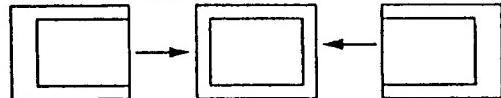
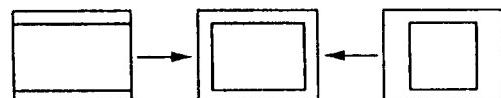
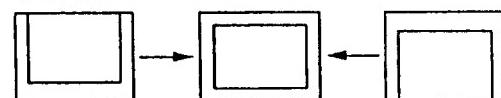
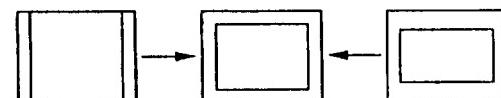
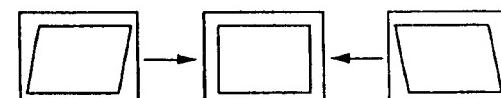
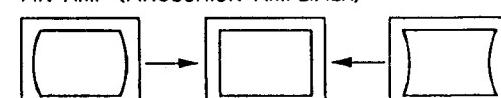
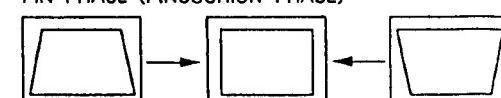
**H.PHASE ADJUSTMENT (RV502)**

1. Input a PAL color bar signal.
  2. Set the picture and brightness controls to their normal levels.
  3. Set RV1508 (H.CENT) to its mechanical center.
  4. Connect the oscilloscope to pin ⑪ (SCP) of IC 501.
  5. Rotate RV502 to adjust to  $H \pm 0.1\mu s$ .
- See below table for the H value.

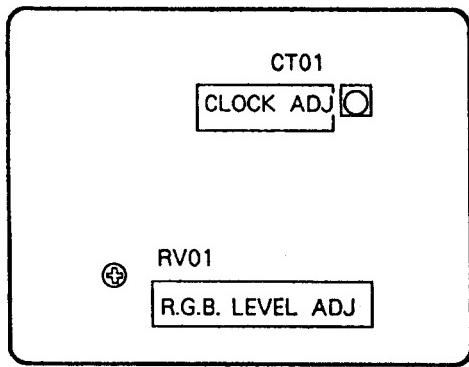


Standard of H.Phase

| Model Size | H          |
|------------|------------|
| 21"        | $5.6\mu s$ |
| 25"        | $5.1\mu s$ |
| 29"        | $5.5\mu s$ |

**4-4. J1 BOARD ADJUSTMENTS**RV1508  
H. CENT (HORIZONTAL CENTER)RV1504  
H. SIZE (HORIZONTAL SIZE)RV1506  
V. CENT (VERTICAL CENTER)RV1507  
V. SIZE (VERTICAL SIZE)RV1509  
V. ANGLE (VERTICAL ANGLE)RV1503  
PIN AMP (PINCUSHION AMPLIFIER)RV1502  
PIN PHASE (PINCUSHION PHASE)RV1501  
PIN. COR (PINCUSHION CORRECT)RV1505  
CORNER. COR (CORNER CORRECT)

#### **4-5. V BOARD ADJUSTMENTS**



##### **CLOCK ADJUSTMENT (CT01)**

1. Remove the V-1 connector.
2. Put the system into text mode.
3. Adjust CT01 so that the picture does not move.

##### **RGB LEVEL ADJUSTMENT (RV01)**

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

## 4-6. SECONDARY ADJUSTMENT

### SUB BRIGHTNESS ADJUSTMENT

1. Set the system to receive a test pattern.
2. Press  $\rightarrow \cdot \leftarrow$  on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
5. Minimize the  $\odot$  contrast setting.
6. Adjust the  $\odot$  brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
7. Depress the  $\diamond$  (store) button of the remote commander.

(SUB mode is released)

If there is no test color pattern

1. Set the system to receive a color pattern.
2. Press on the remote commander to put system into normal mode.

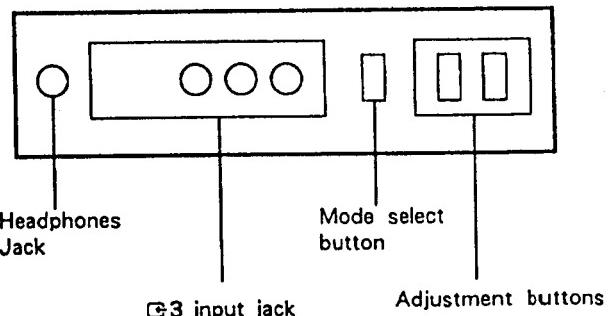
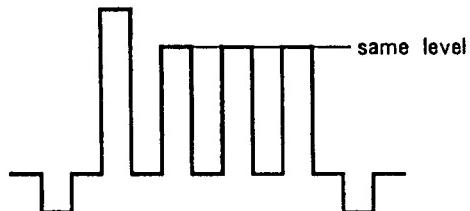
Set the  $\odot$  color to its normal state.

3-5. are the same as above.

6. Since 20 IRE is nearly blue, adjust the  $\odot$  brightness control so that the blue barely glows.
7. is the same as above.
8. Press  $\rightarrow \cdot \leftarrow$  on the remote commander to put the system into normal mode.

### SUB COLOR ADJUSTMENT

1. Set the system to receive color bars.
2. Press  $\rightarrow \cdot \leftarrow$  on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjustment buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
5. Adjust the color control so that the B out waveform (pin ② of C board connector CNC72) is as shown in the figure below.
6. Depress the  $\diamond$  (store) button of the remote commander. (SUB mode is released)

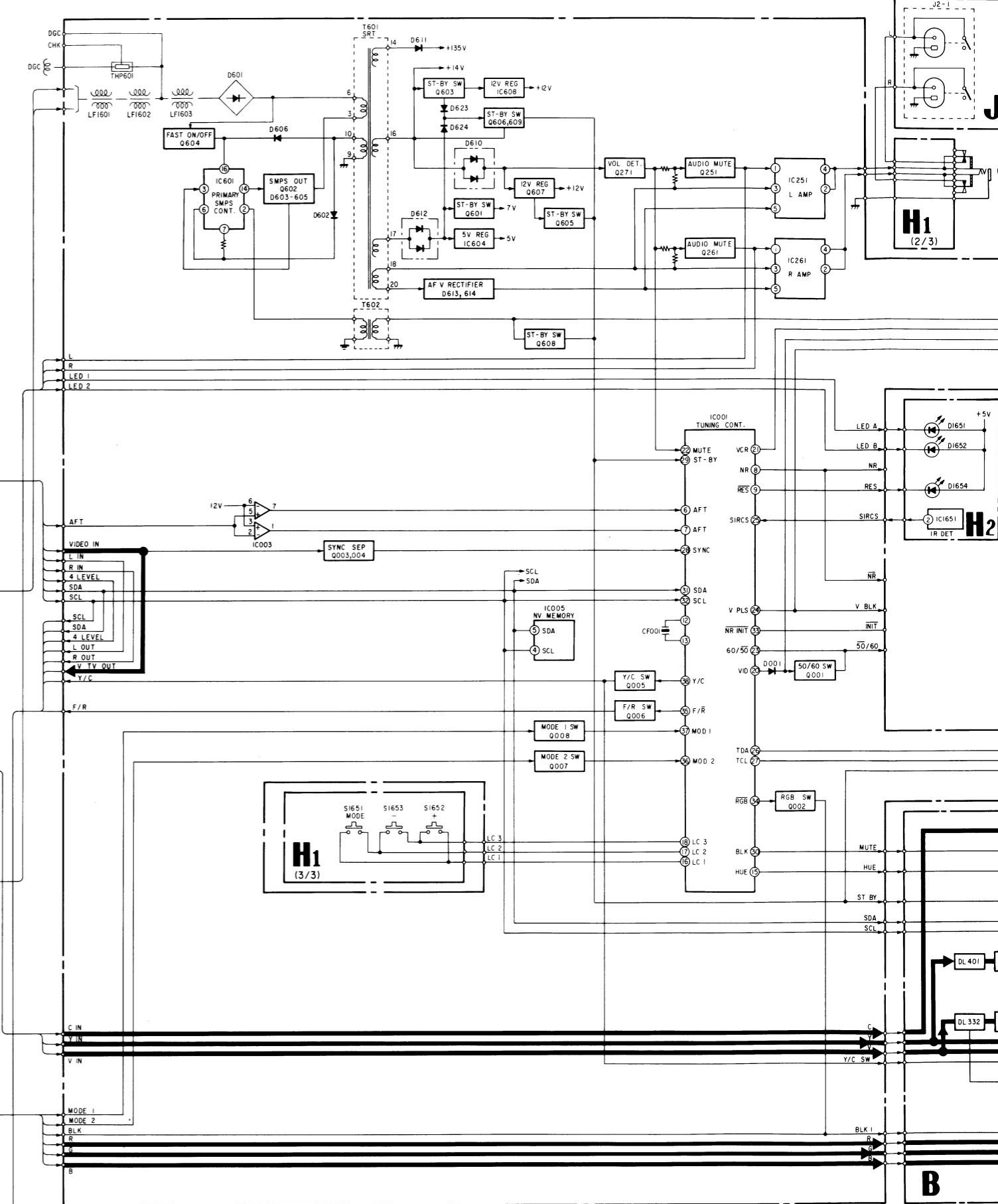
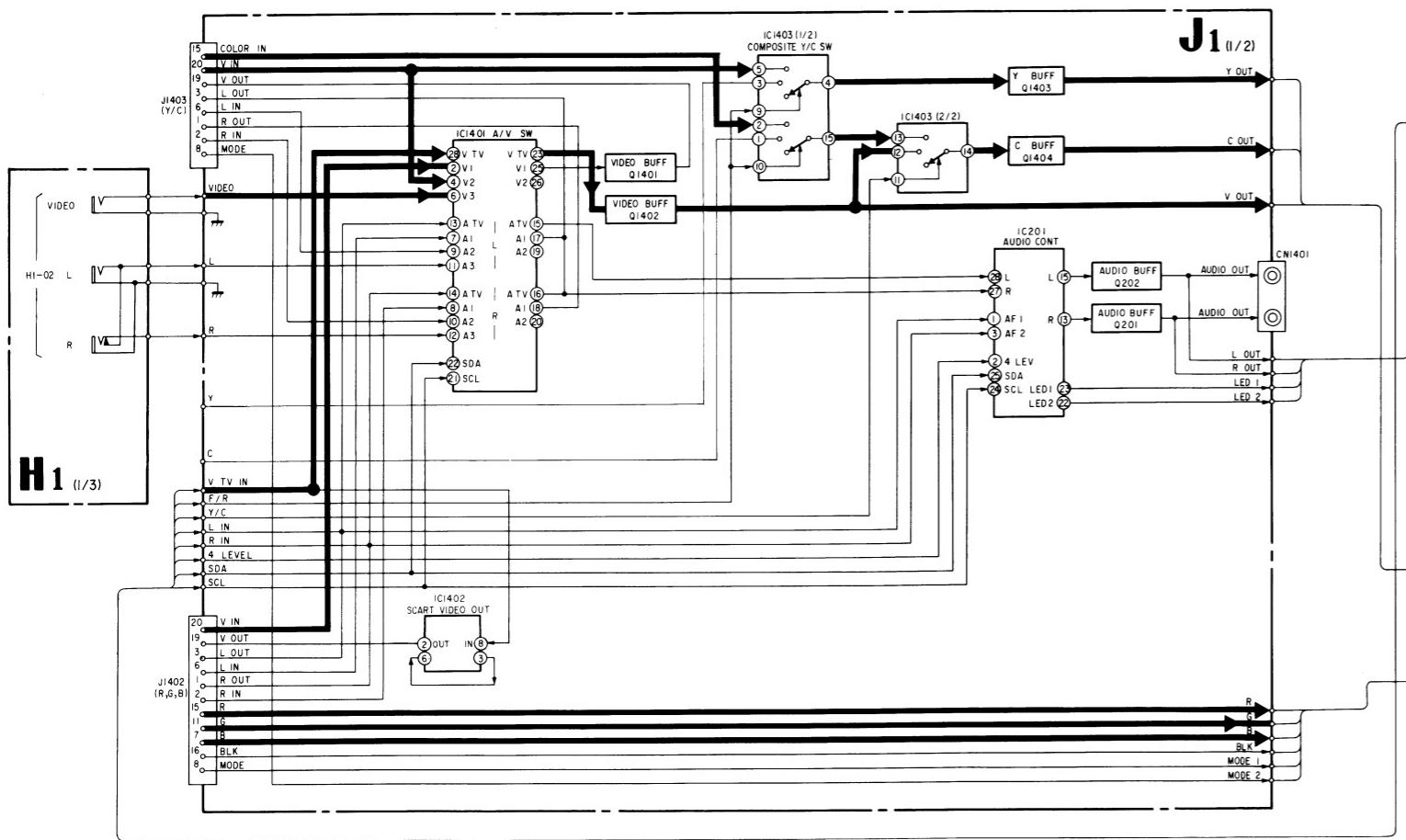
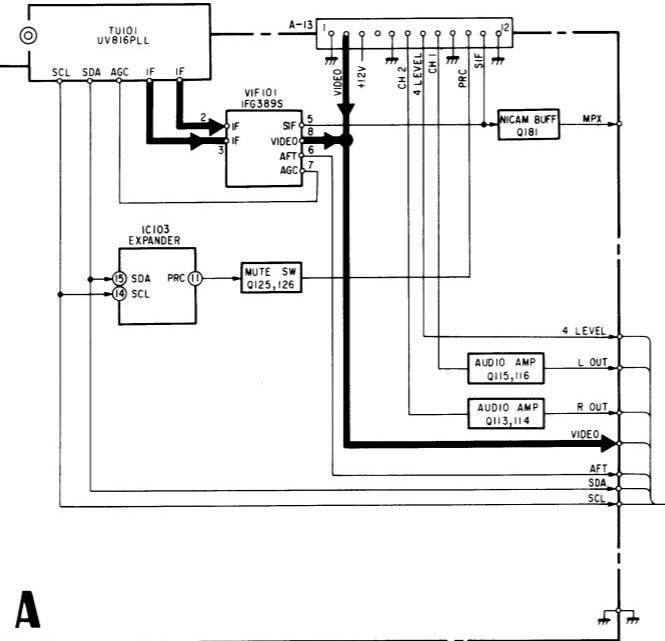
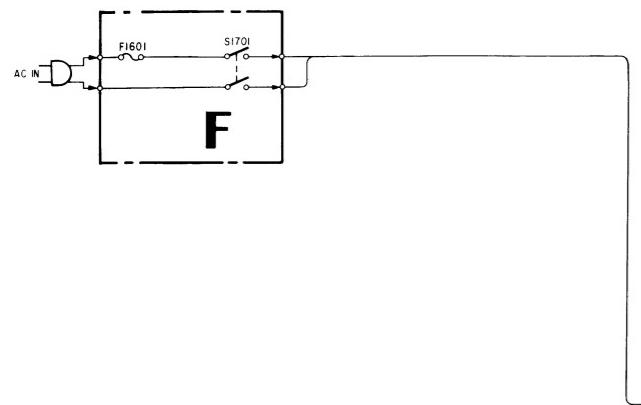


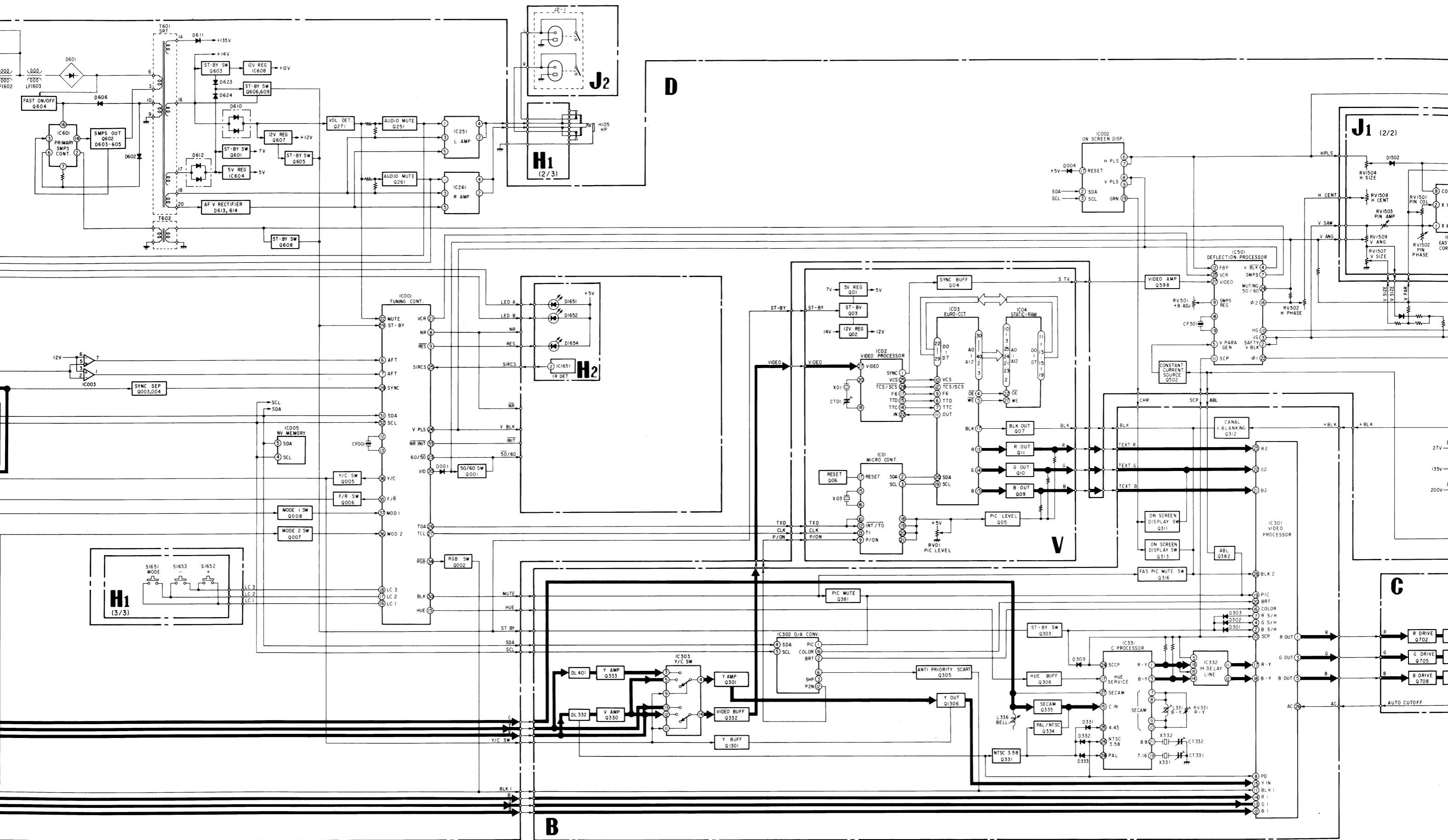
**MEMO**

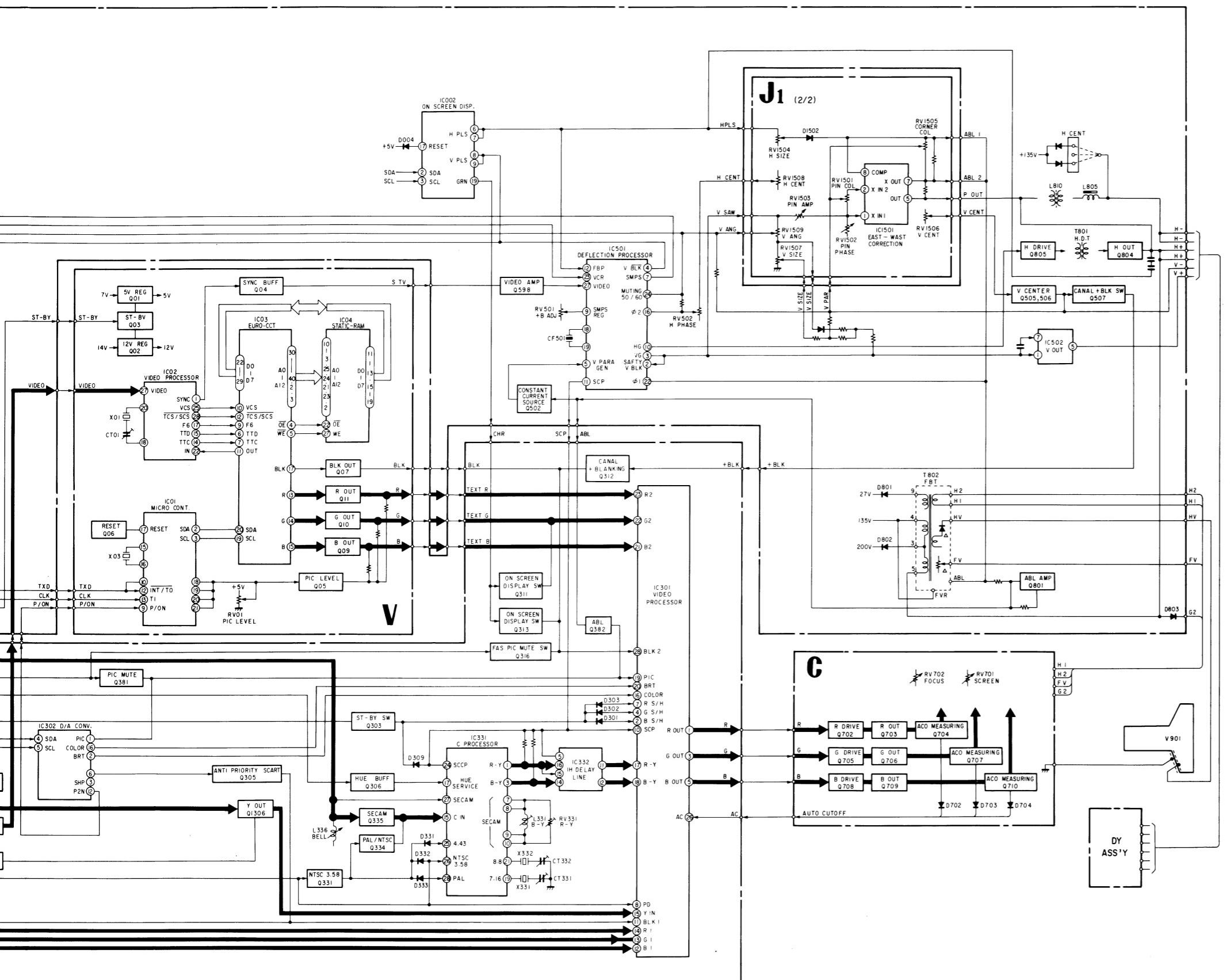
**SECTION 5  
DIAGRAMS**

**KV-X2131D**  
RM-689

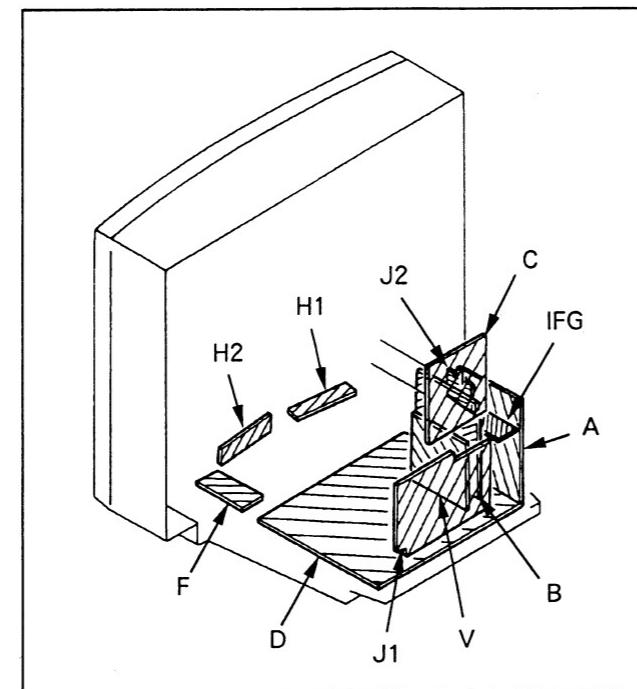
**5-1. BLOCK DIAGRAM**







## 5-2. CIRCUIT BOARDS LOCATION



Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

## Note :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
 $\text{pF}$ :  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm  
Rating electrical power: 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms.  $\text{k}\Omega = 1000\Omega$ ,  $\text{M}\Omega = 1000\text{k}\Omega$
- : nonflammable resistor.
- : fusible resistor.
- $\triangle$  : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B.unless otherwise noted.
- All voltages are in V.
- Readings are taken with a  $10\text{M}\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B + line.
- : signal path.

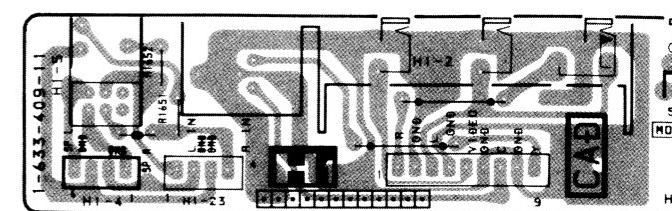
## Reference information

|           |         |                          |
|-----------|---------|--------------------------|
| RESISTOR  | : RN    | METAL FILM               |
|           | : RC    | SOLID                    |
|           | : FPRD  | NONFLAMMABLE CARBON      |
|           | : FUSE  | NONFLAMMABLE FUSIBLE     |
|           | : RS    | NONFLAMMABLE METAL OXIDE |
|           | : RB    | NONFLAMMABLE CEMENT      |
|           | : RW    | NONFLAMMABLE WIREWOUND   |
|           | : *     | ADJUSTMENT RESISTOR      |
| COIL      | : LF-8L | MICRO INDUCTOR           |
| CAPACITOR | : TA    | TANTALUM                 |
|           | : PS    | STYROL                   |
|           | : PP    | POLYPROPYLENE            |
|           | : PT    | MYLAR                    |
|           | : MPS   | METALIZED POLYESTER      |
|           | : MPP   | METALIZED POLYPROPYLENE  |
|           | : ALB   | BIPOLAR                  |
|           | : ALT   | HIGH TEMPERATURE         |
|           | : ALR   | HIGH RIPPLE              |

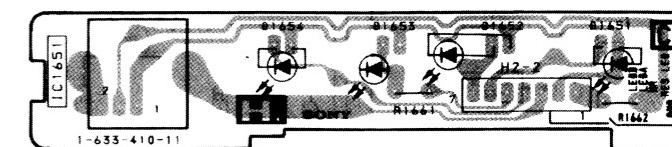
## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Conductor Side-

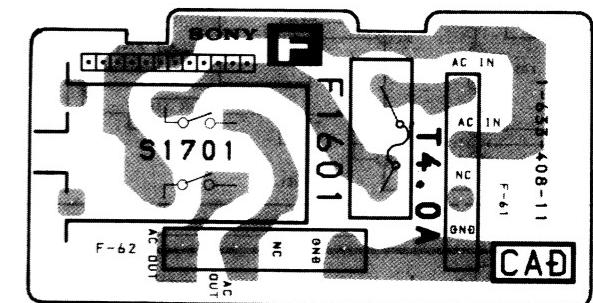
## -H1 Board-



## -H2 Board-



## -F Board-



**H1** [CONTROL SW,  
AV INPUT,  
HEADPHONE]**H2** [SIRCS RECEIVER,  
INDICATOR]**F** [AC IN POWER SW]

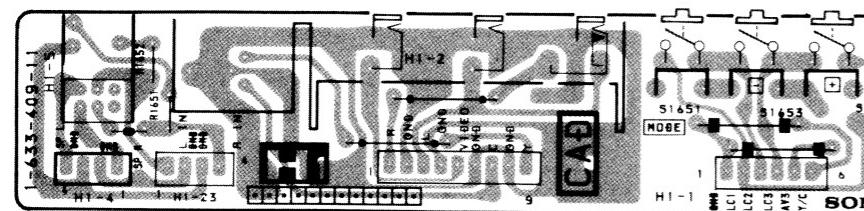
[TUNER, VIF, SIF]

**A****J1**

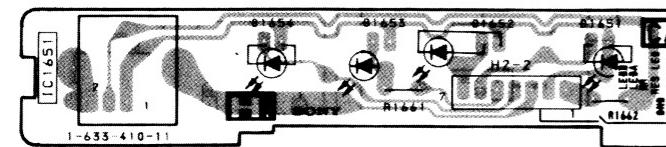
## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Conductor Side

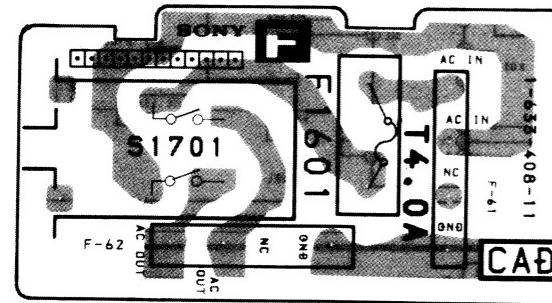
-H1 Board-



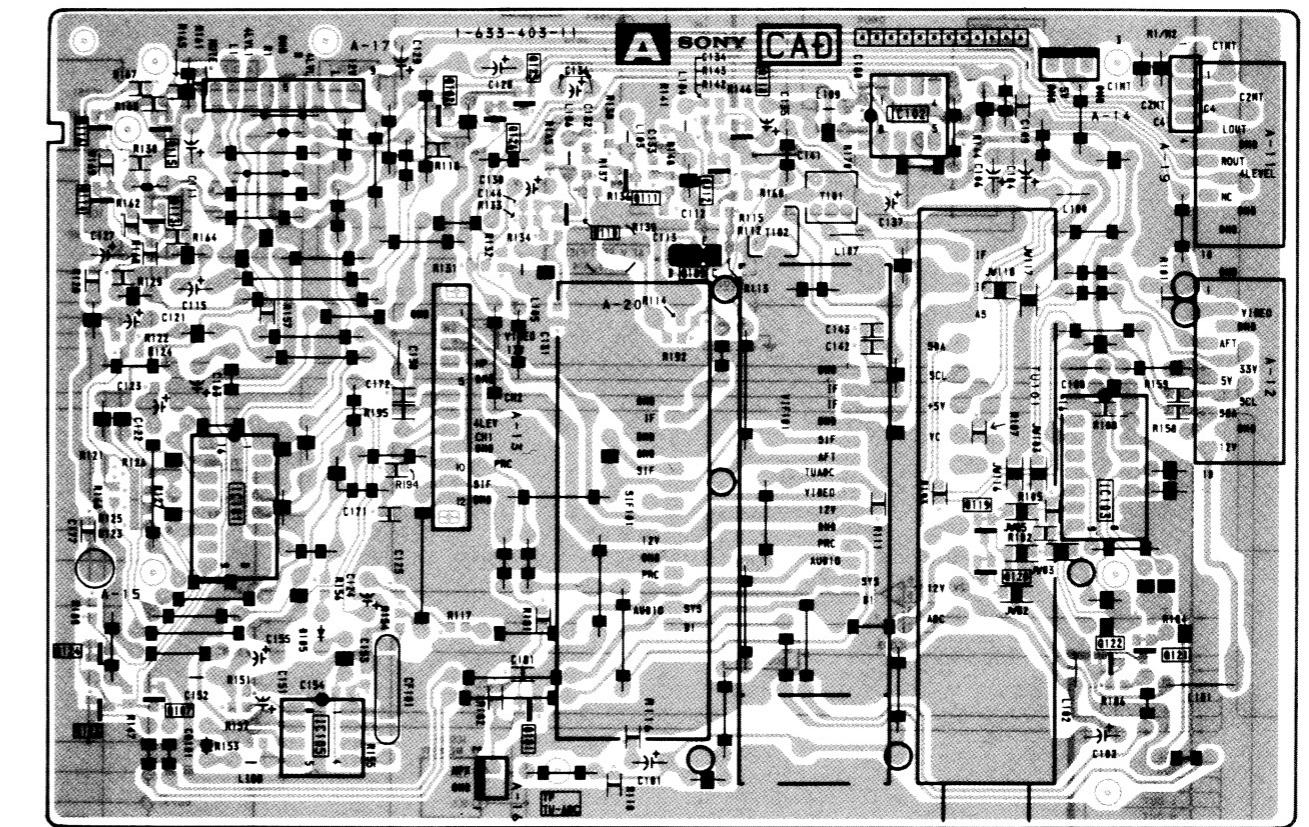
-H2 Board-



-F Board-



-A Board-



-J1 Boa

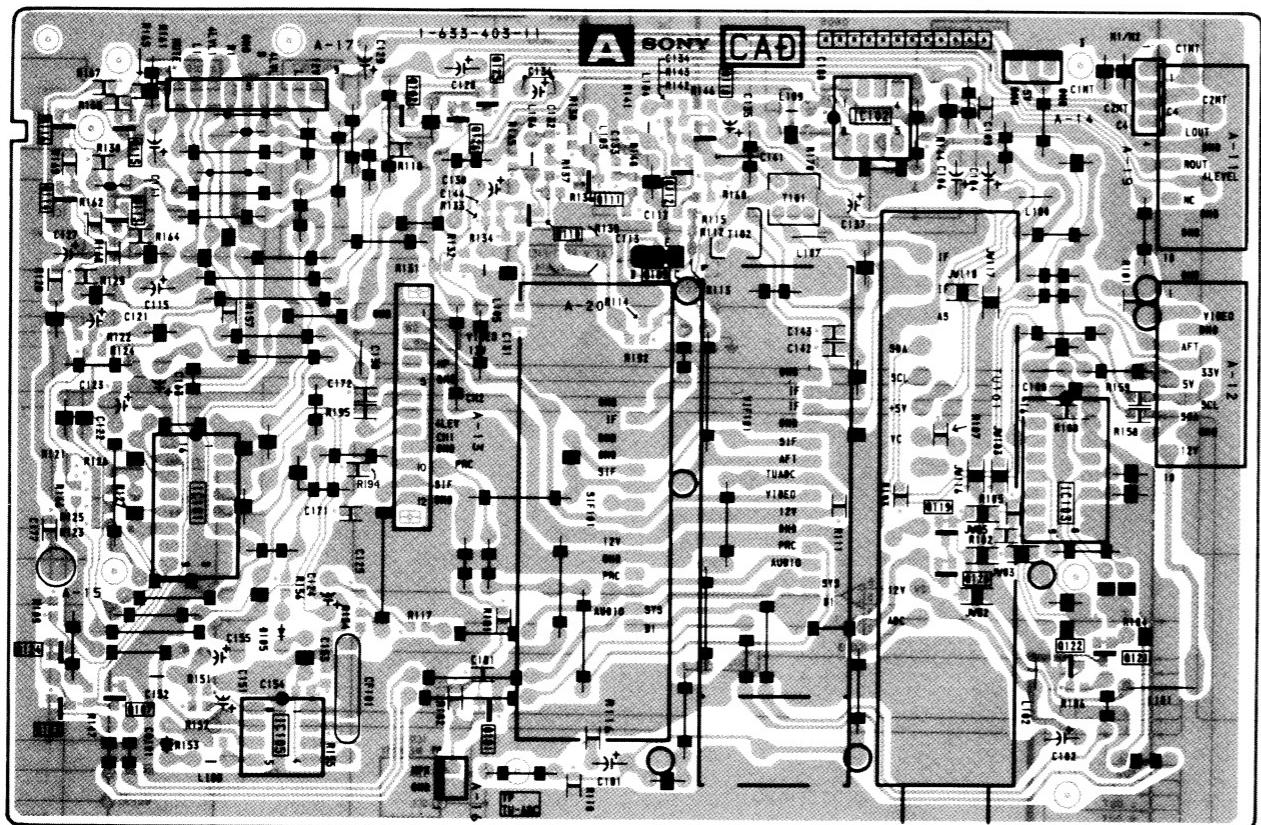
-J2 Boa

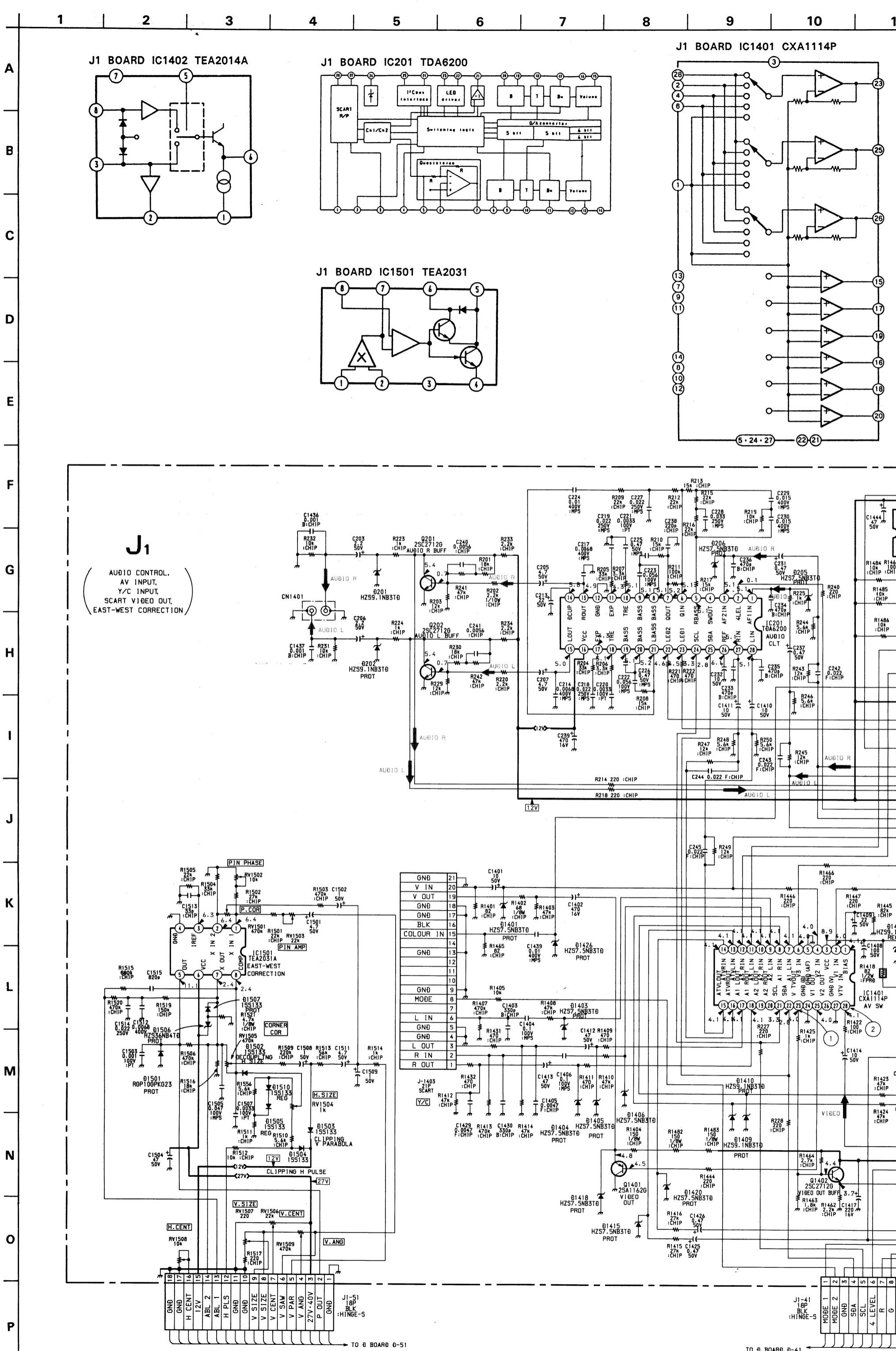
[TUNER, VIF, SIF] A

J1 [AUDIO CONTROL, AV INPUT  
Y/C INPUT, SCAR VIDEO OUT  
EAST-WEST CORRECTION]

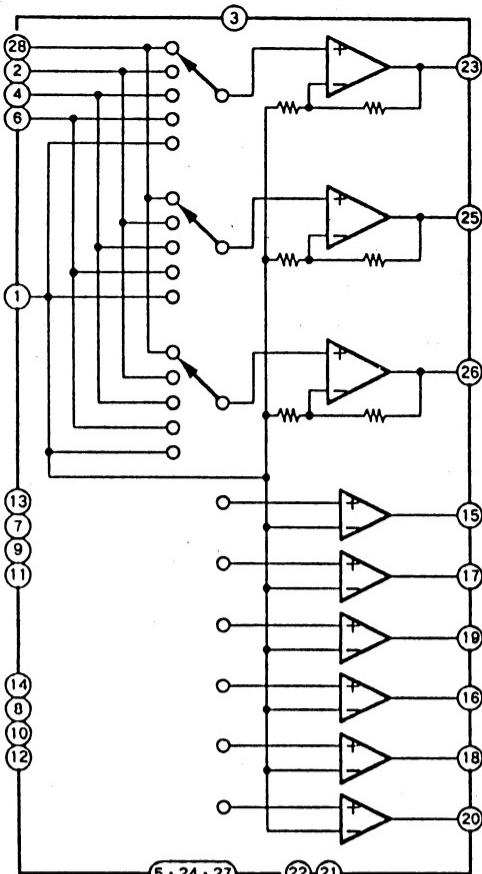
J2 [SPEAKER TERMINAL]

—A Board—

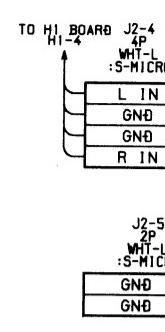
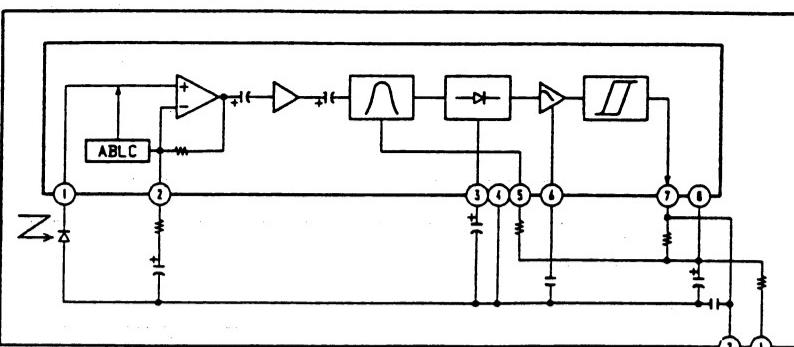




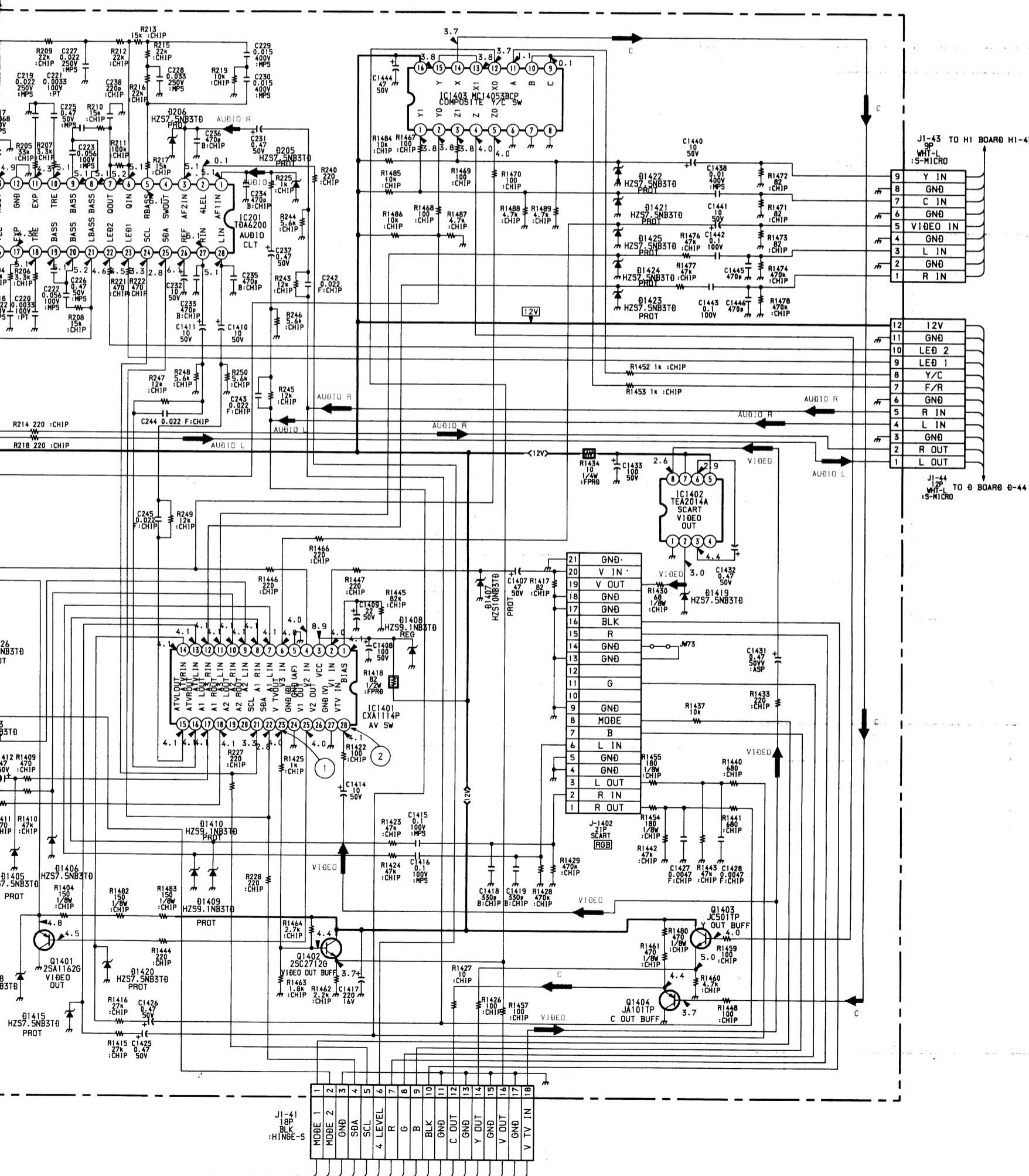
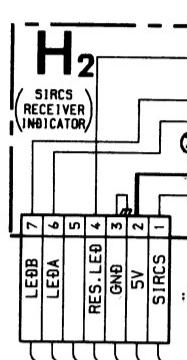
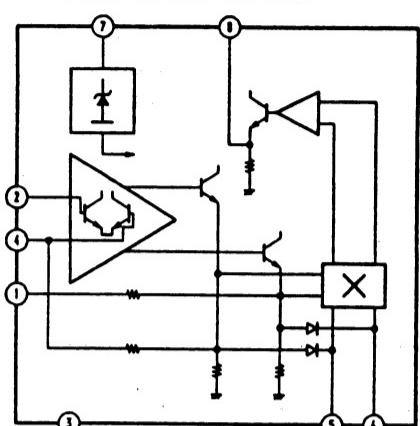
J1 BOARD IC1401 CXA1114P



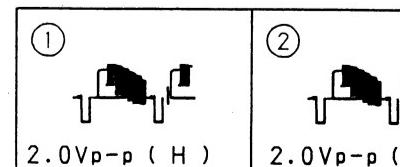
H2 BOARD IC1651 BA1387



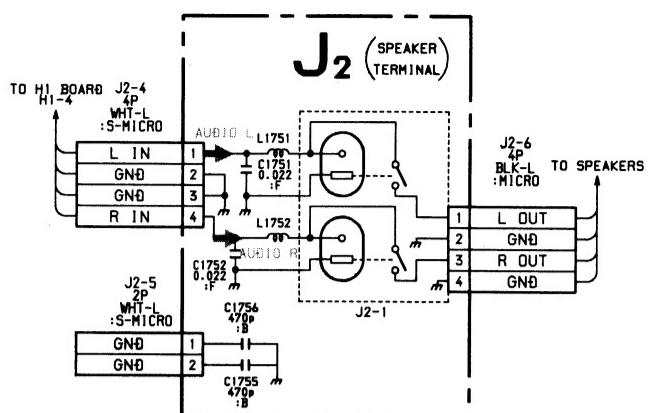
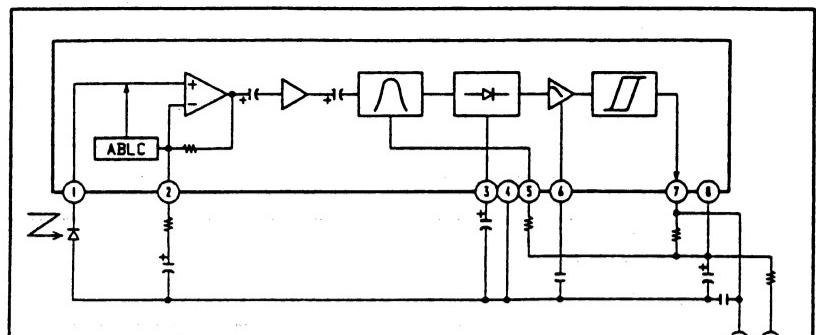
A BOARD IC105 TBA129



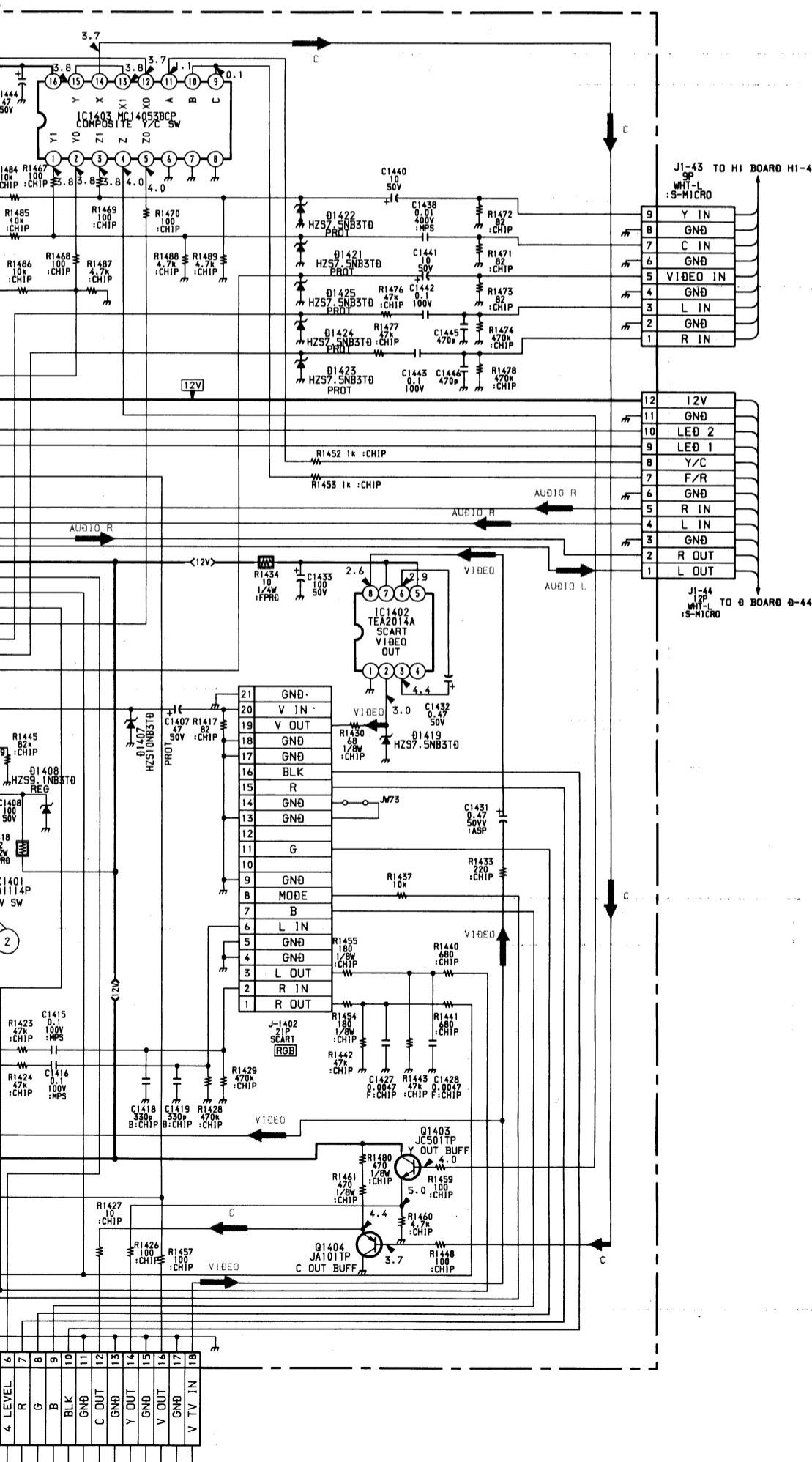
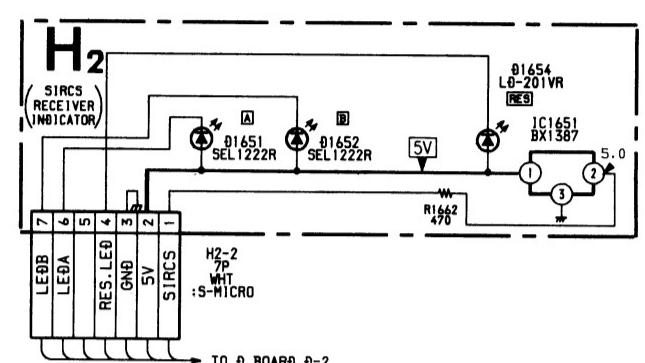
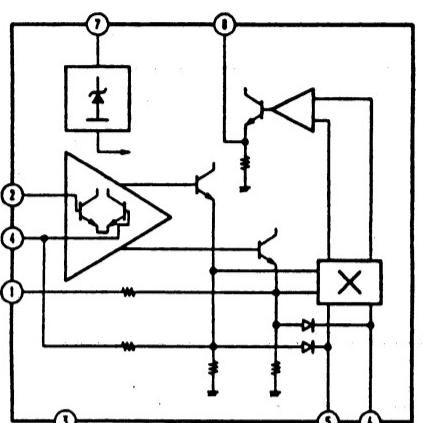
• WAVEFORMS J1 BOARD



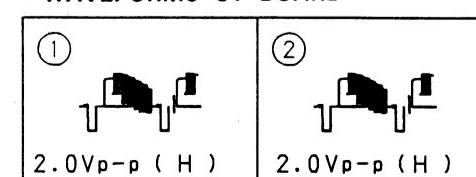
## H2 BOARD IC1651 BA1387



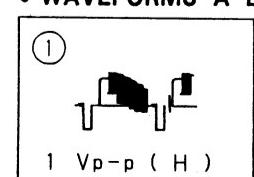
## A BOARD IC105 TBA129

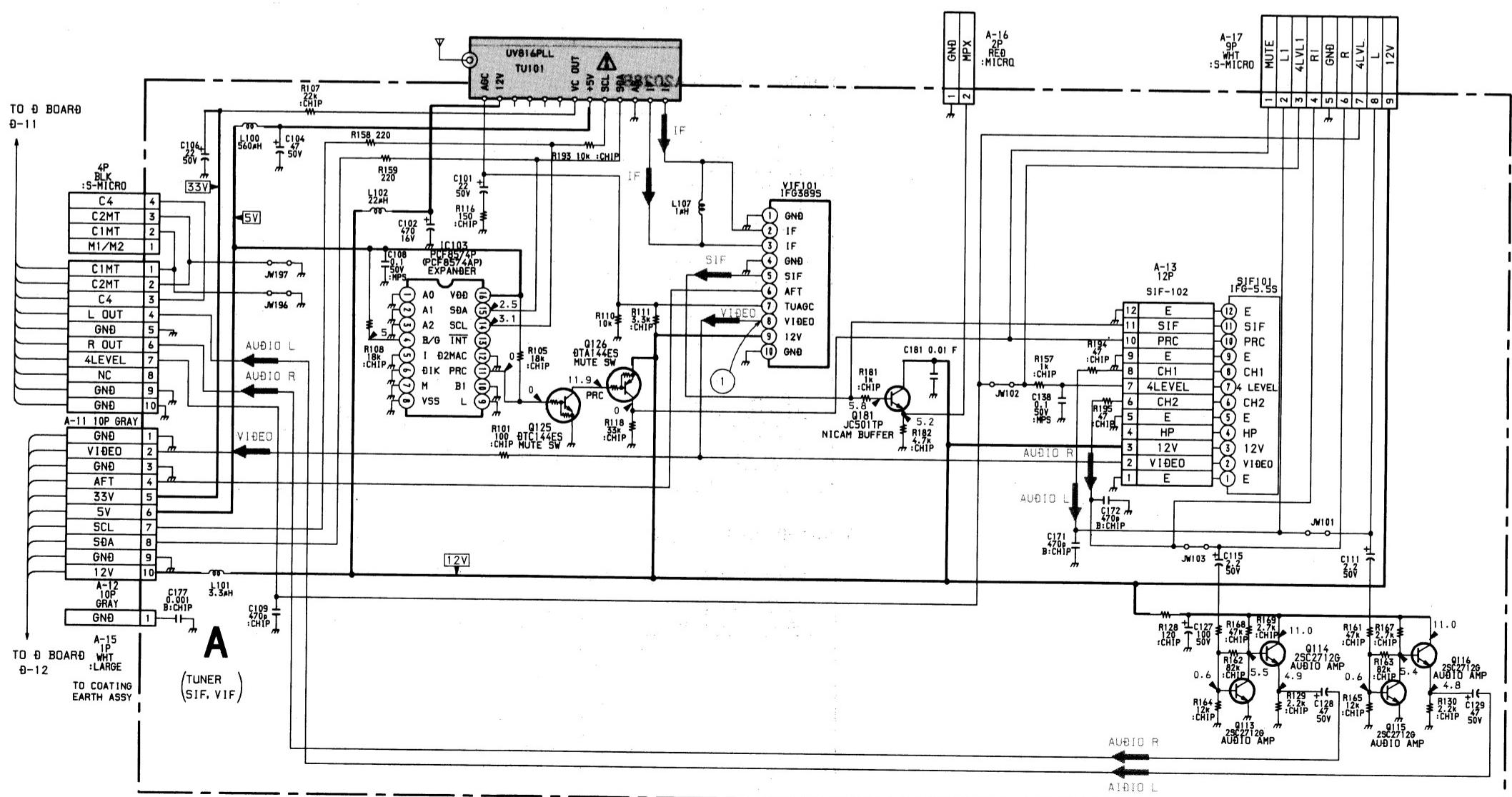
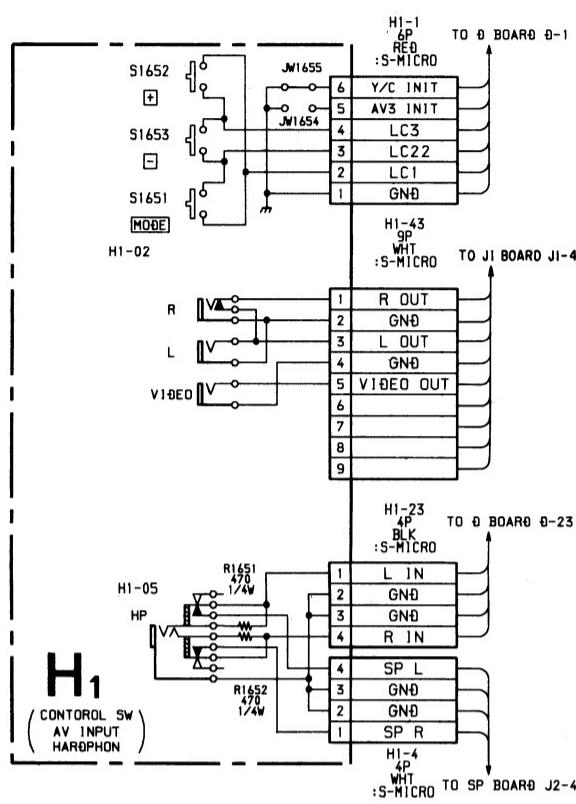
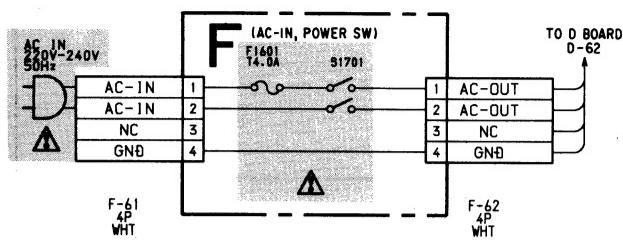


## • WAVEFORMS J1 BOARD

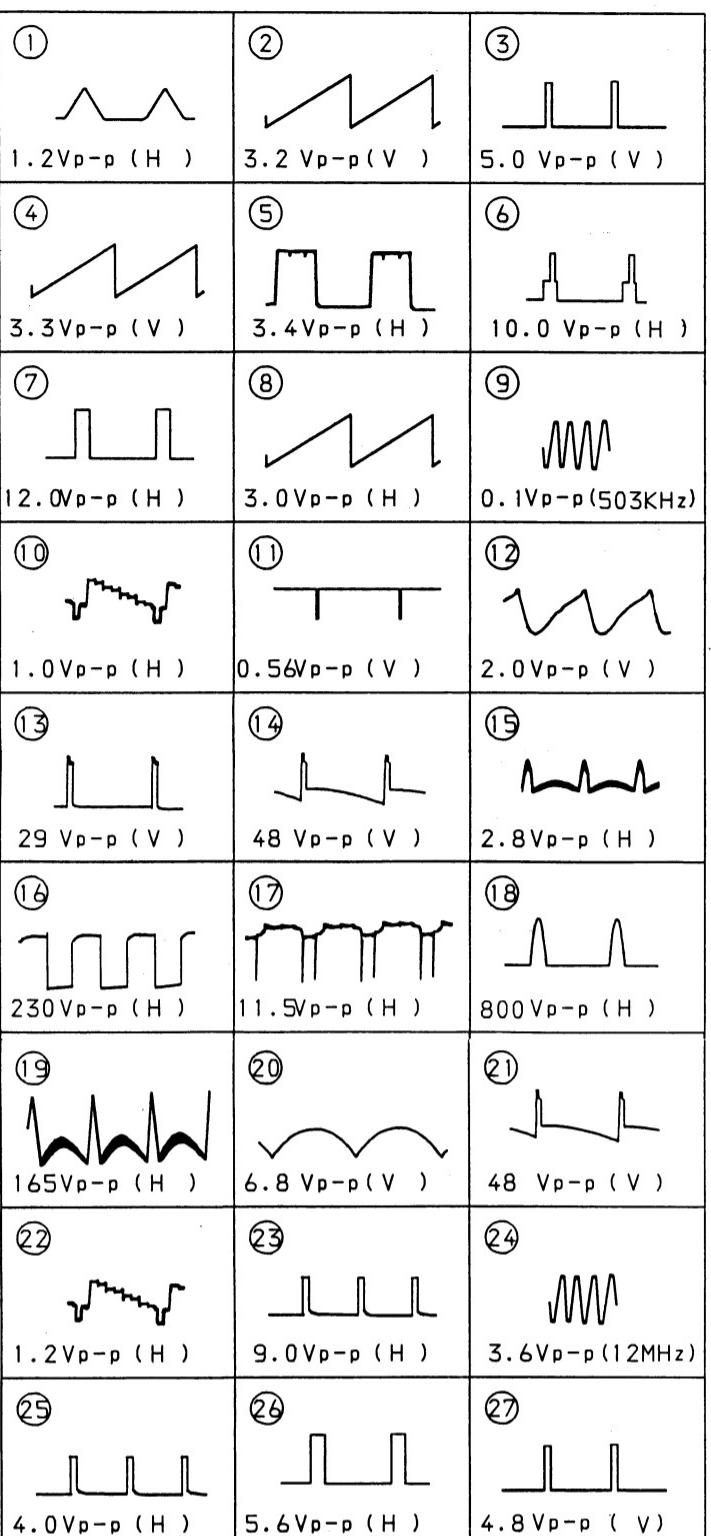


## • WAVEFORMS A BOARD

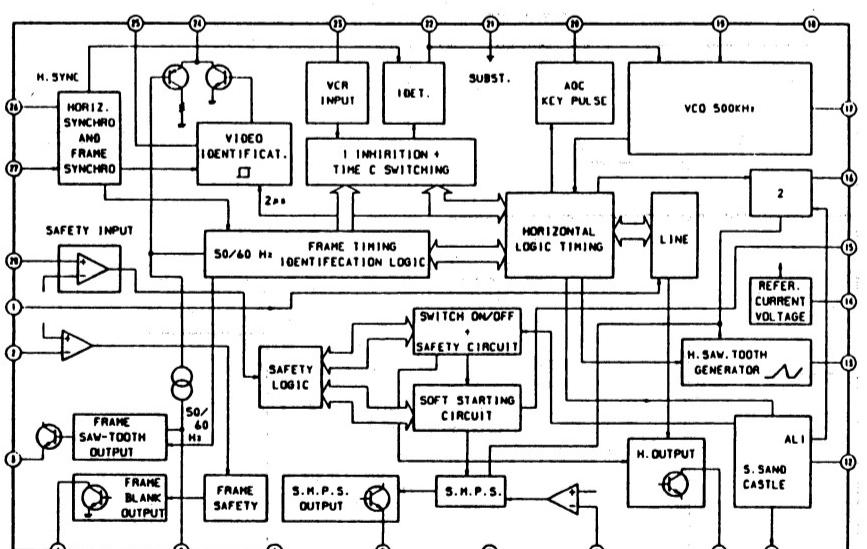




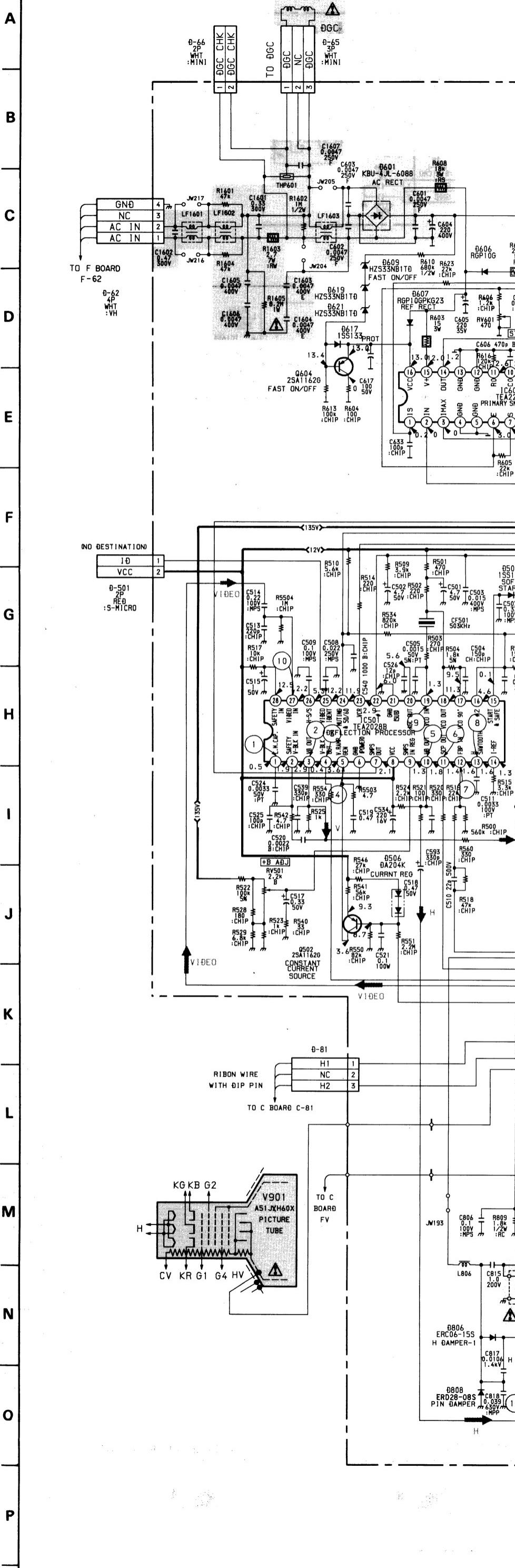
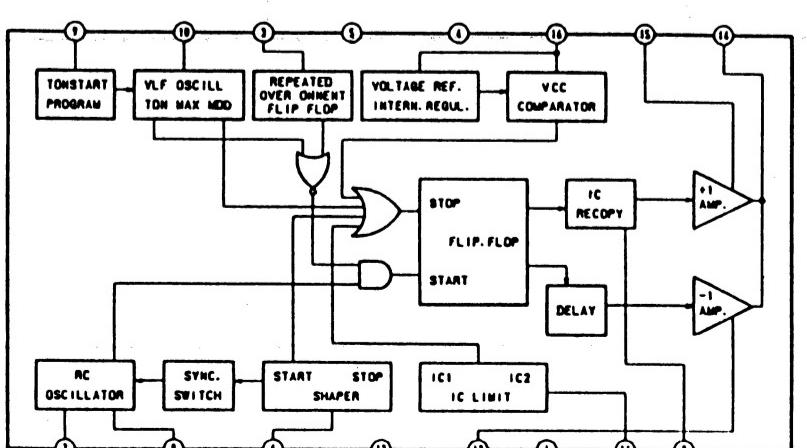
• WAVEFORMS D BOARD

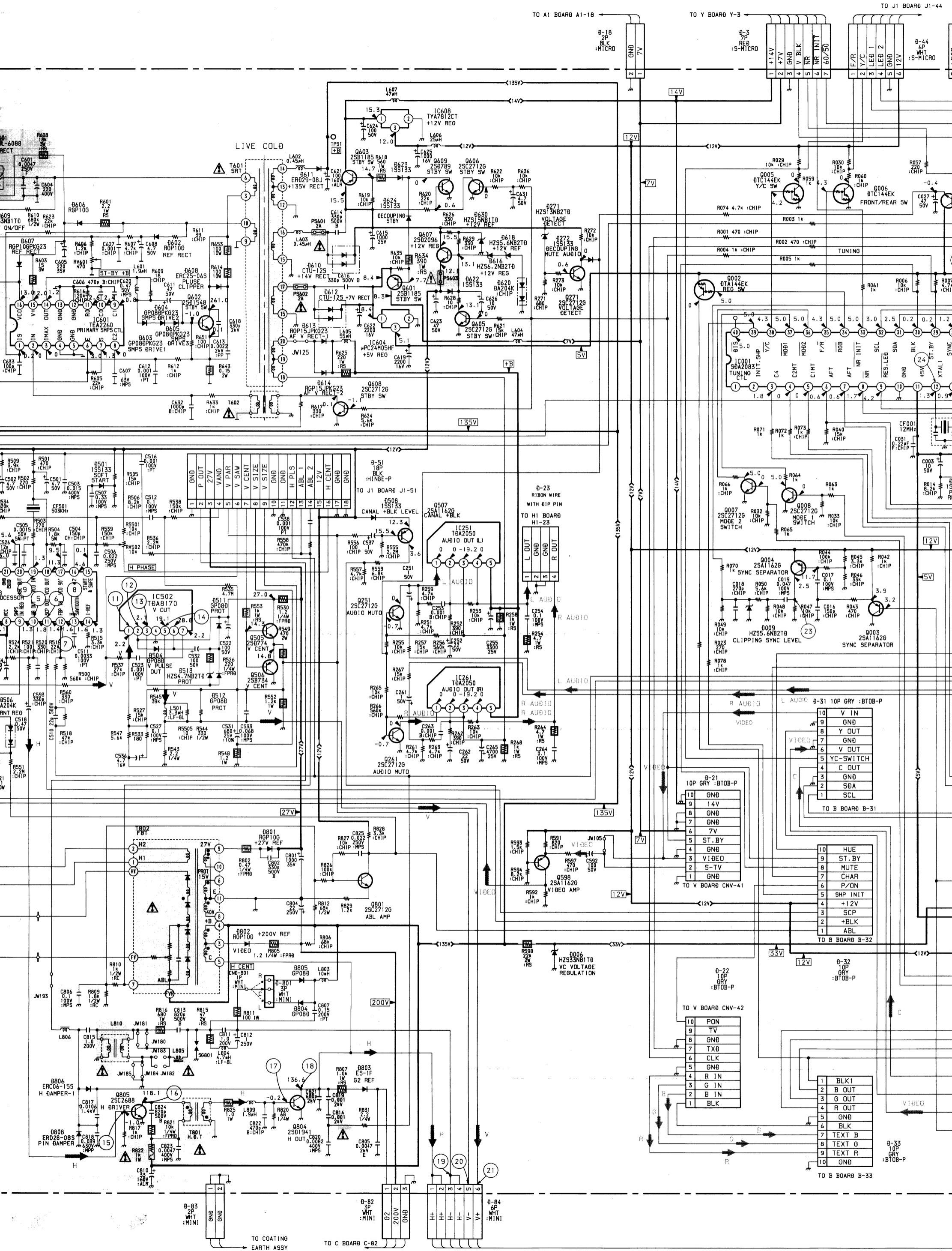


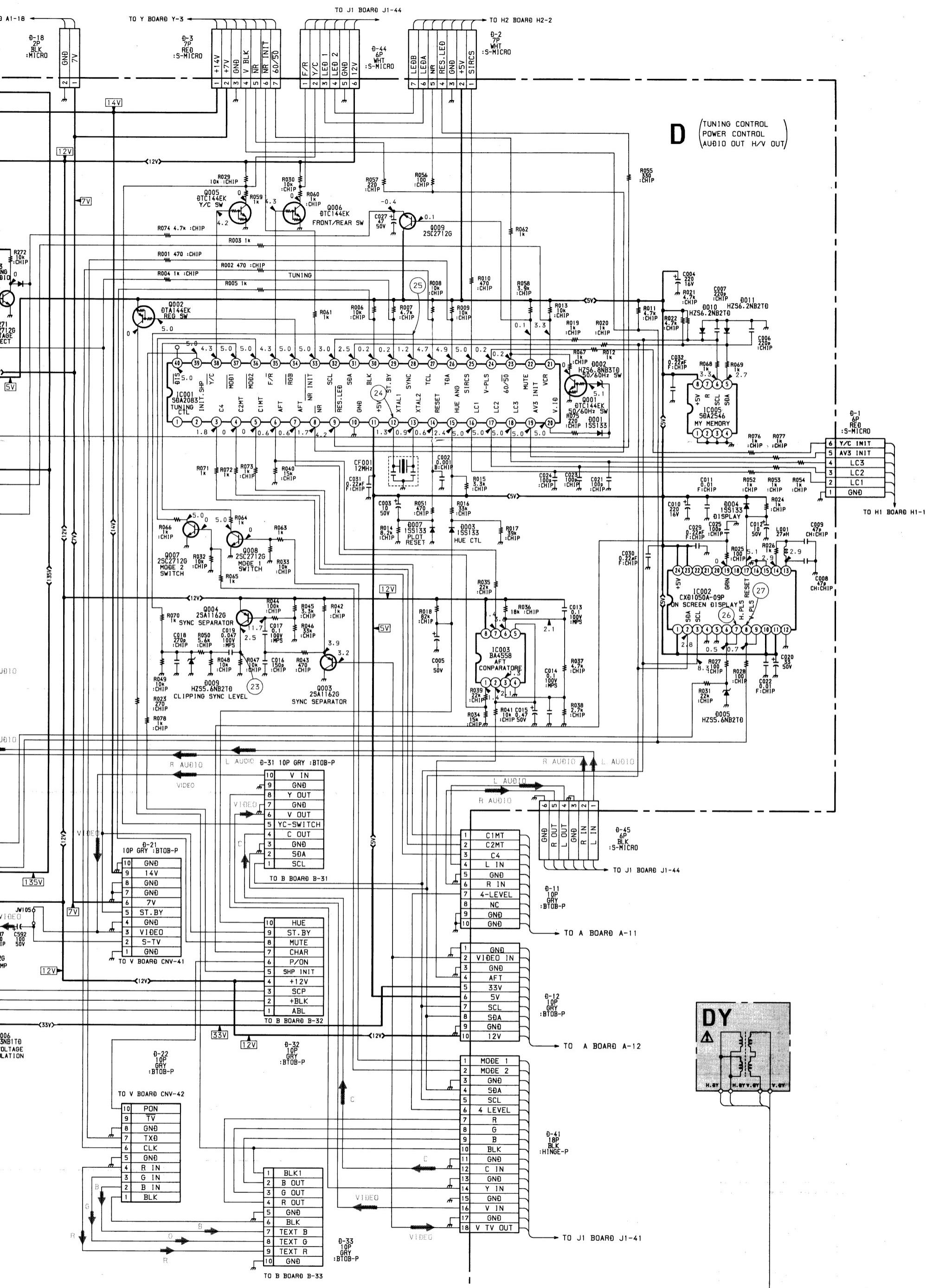
D BOARD IC501 TEA2028B



D BOARD IC601 TEA2260

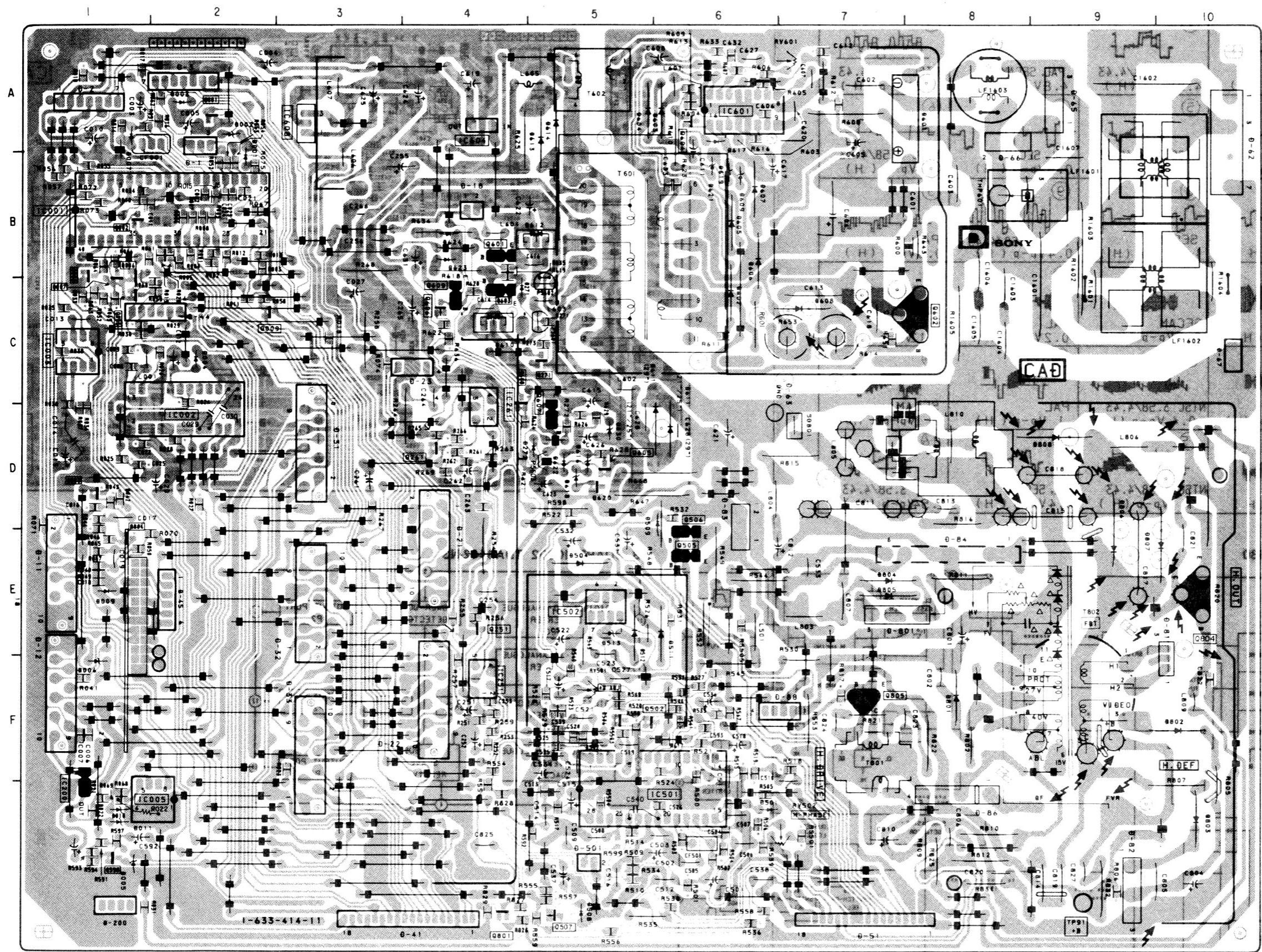






TUNING CONTROL,  
POWER CONTROL,  
AUDIO OUT, H/V OUT

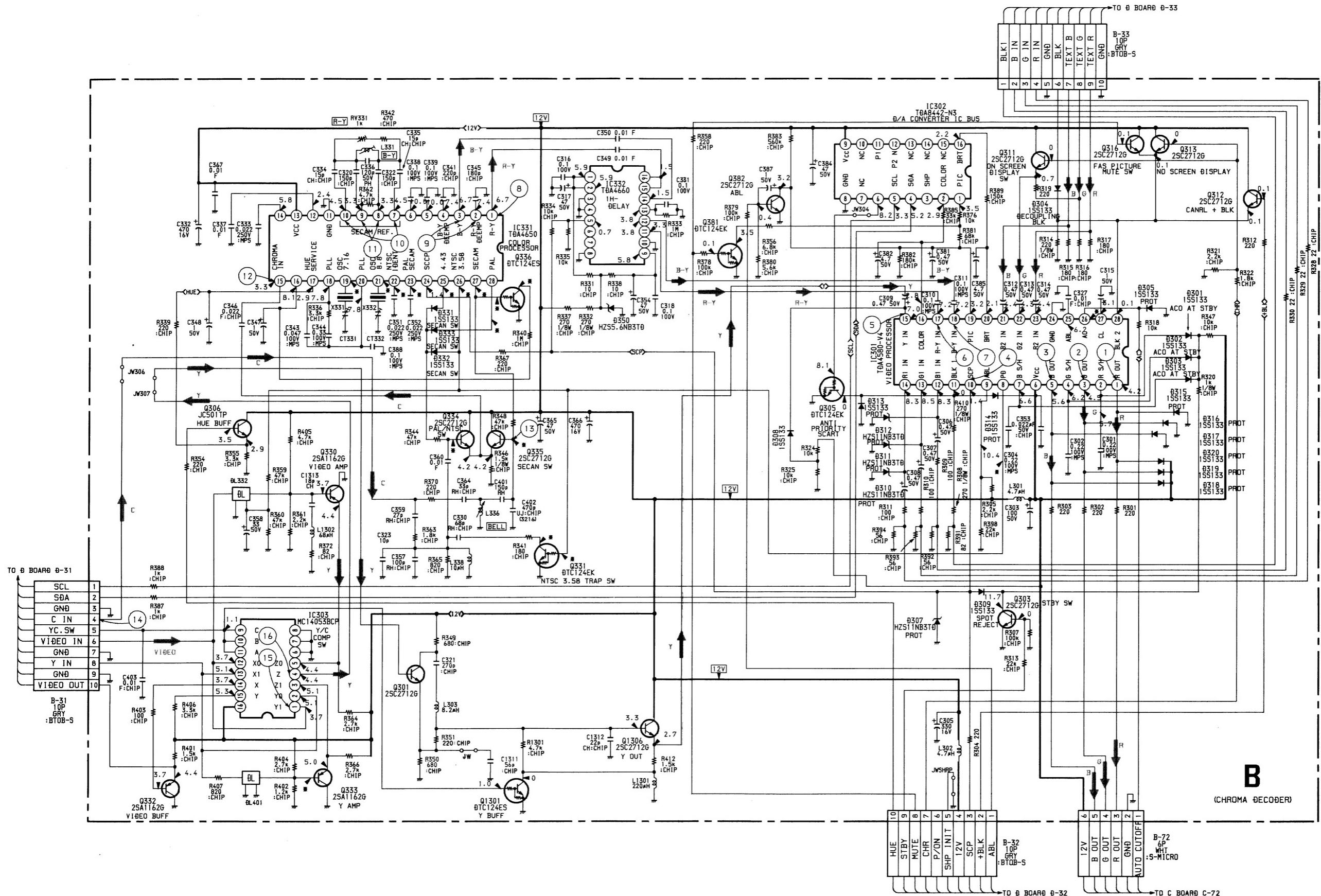
- D Board -



| IC                |      | D006                     | F-1  |
|-------------------|------|--------------------------|------|
| IC001             | B-2  | D007                     | A-1  |
| IC002             | D-2  | D009                     | E-1  |
| IC003             | C-1  | D010                     | G-1  |
| IC005             | G-2  | D011                     | G-1  |
| IC251             | F-4  | D271                     | C-4  |
| IC261             | C-4  | D272                     | D-5  |
| IC501             | G-6  | D501                     | G-6  |
| IC502             | E-5  | D504                     | E-5  |
| IC601             | A-6  | D506                     | F-5  |
| IC604             | A-4  | D508                     | G-5  |
| IC608             | A-3  | D509                     | D-6  |
|                   |      | D511                     | E-6  |
|                   |      | D512                     | E-5  |
|                   |      | D513                     | E-5  |
| <b>TRANSISTOR</b> |      | D601                     | A-8  |
| Q001              | A-2  | D602                     | C-6  |
| Q002              | B-1  | D603                     | A-6  |
| Q003              | D-1  | D604                     | A-5  |
| Q004              | D-1  | D605                     | B-6  |
| Q005              | C-1  | D606                     | B-6  |
| Q006              | B-1  | D607                     | B-6  |
| Q007              | C-1  | D608                     | C-7  |
| Q008              | C-1  | D609                     | B-6  |
| Q009              | C-2  | D610                     | C-4  |
| Q251              | E-4  | D611                     | D-6  |
| Q261              | D-4  | D612                     | B-5  |
| Q271              | C-5  | D613                     | A-5  |
| Q502              | F-6  | D614                     | A-5  |
| Q505              | E-6  | D616                     | D-5  |
| Q506              | E-6  | D617                     | A-6  |
| Q507              | G-5  | D618                     | D-5  |
| Q598              | G-1  | D619                     | B-6  |
| Q601              | B-4  | D620                     | D-5  |
| Q602              | C-8  | D621                     | B-6  |
| Q603              | C-4  | D622                     | D-5  |
| Q604              | A-6  | D623                     | B-4  |
| Q605              | D-5  | D624                     | B-4  |
| Q606              | C-4  | D630                     | D-5  |
| Q607              | D-5  | D801                     | F-8  |
| Q608              | C-4  | D802                     | F-10 |
| Q609              | C-4  | D803                     | G-10 |
| Q801              | G-4  | D804                     | E-7  |
| Q804              | E-10 | D805                     | E-7  |
| Q805              | F-7  | D806                     | E-9  |
|                   |      | D807                     | E-10 |
|                   |      | D808                     | D-9  |
| <b>DIODE</b>      |      | <b>VARIABLE RESISTOR</b> |      |
| D001              | B-2  | RV501                    | F-5  |
| D002              | A-2  | RV502                    | G-7  |
| D003              | A-2  | RV601                    | A-7  |
| D004              | C-2  |                          |      |
| D005              | G-1  |                          |      |

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16

A



15

16

17

18

19

20

21

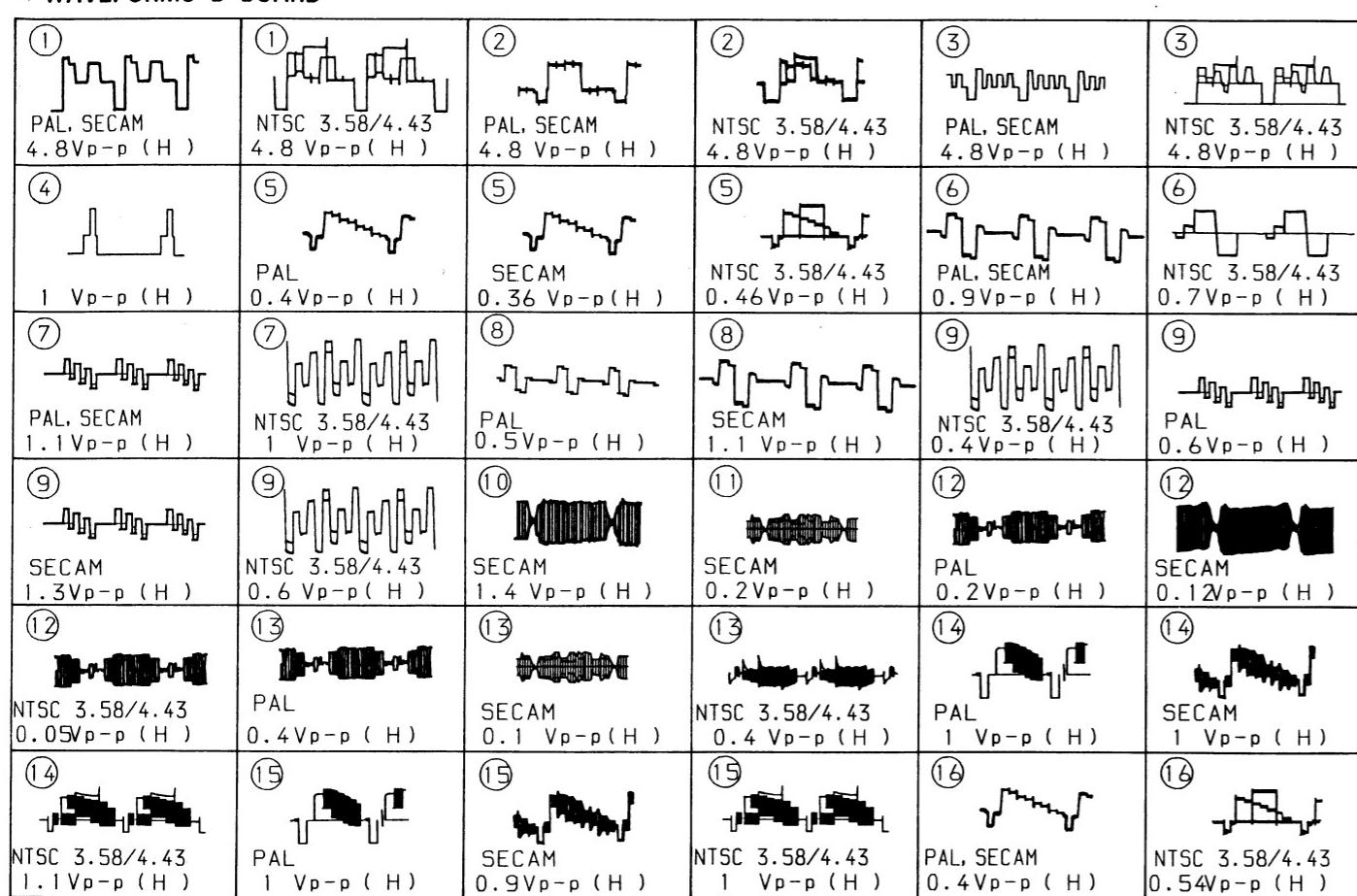
22

23

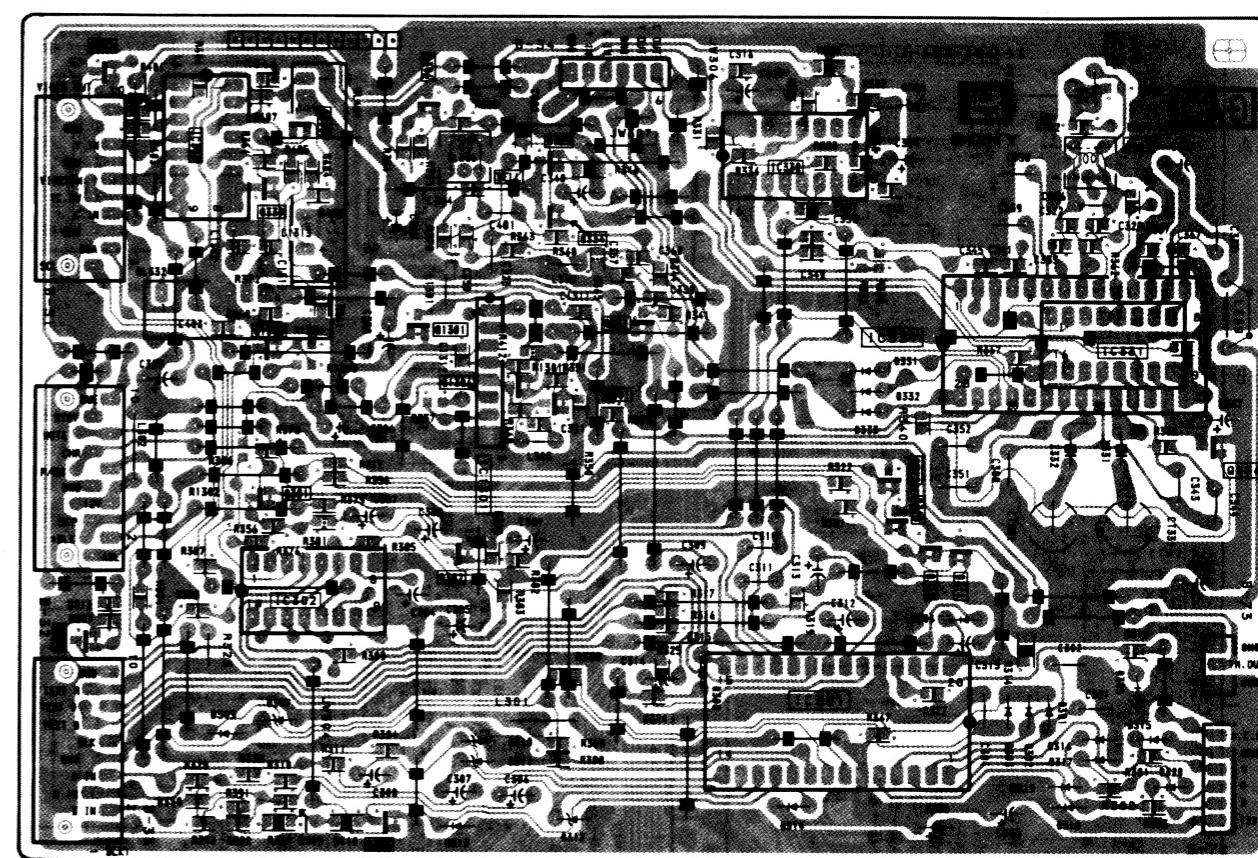
B

[CHROMA DECODER]

## • WAVEFORMS B BOARD

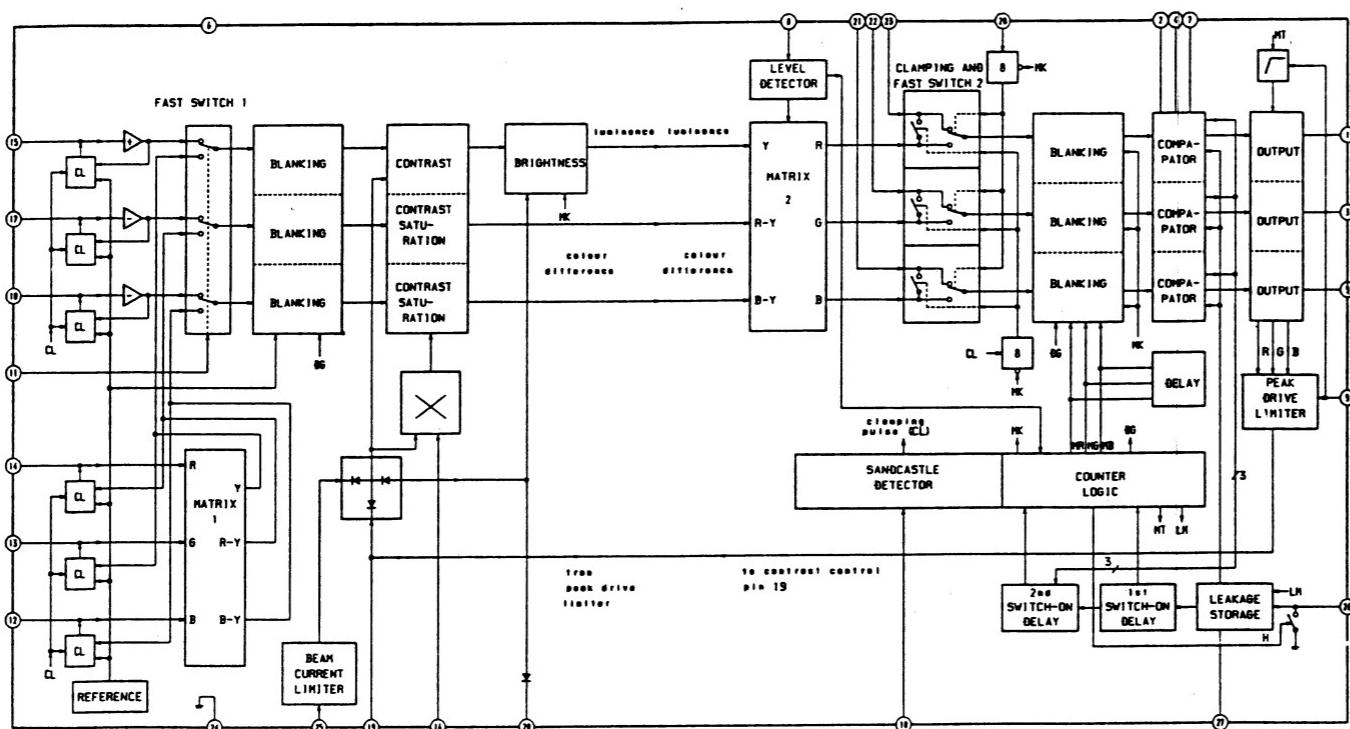


## —B Board—

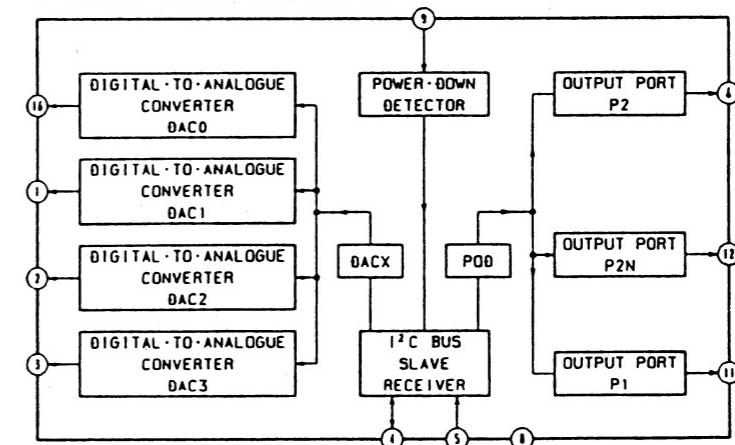


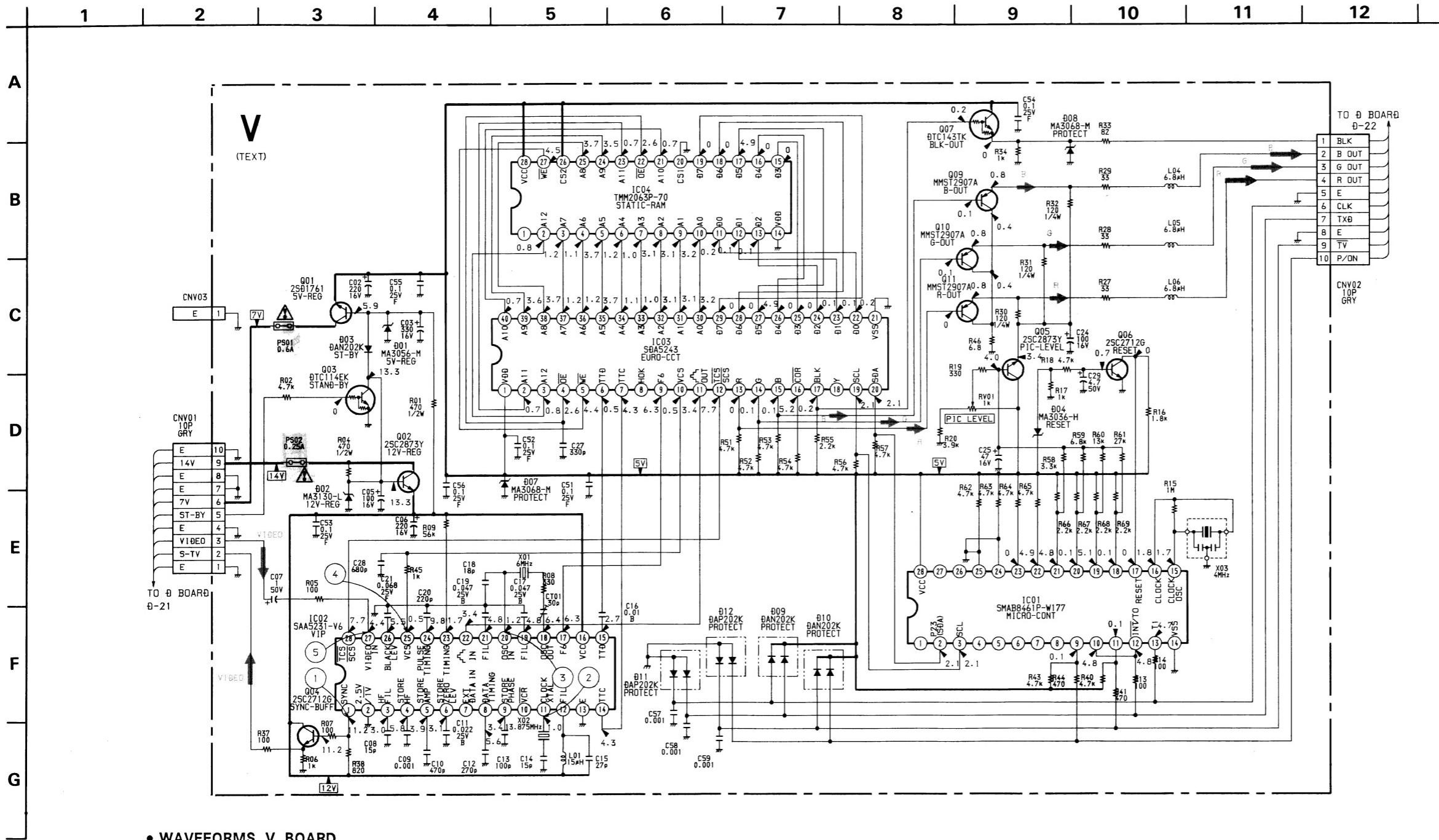
## B BOARD IC301 TDA4580

|        | PAL | SECAM | NTSC3.58 | NTSC4.43 |
|--------|-----|-------|----------|----------|
| 01 (A) | 0.1 | 0.1   | 5.8      | 0.1      |
| 26 (B) | 6.7 | 6.8   | 5.1      | 5.1      |
| 31 (C) | 3.1 | 3.6   | 3.1      | 2.8      |
| 21 (D) | 3.0 | 3.5   | 2.9      | 2.7      |
| 22 (E) | 5.6 | 5.6   | 7.1      | 7.2      |
| 23 (F) | 7.5 | 7.0   | 5.6      | 5.6      |
| 25 (G) | 0.1 | 0.1   | 0.1      | 5.8      |
| 26 (H) | 0.1 | 0.1   | 5.8      | 0.1      |
| 27 (I) | 0.1 | 5.8   | 0.1      | 0.1      |
| 28 (J) | 5.9 | 0.1   | 0.1      | 0.1      |
| 31 (K) | 0.1 | 0.1   | 5.8      | 0.1      |
| (C)    | 1.5 | 1.9   | 0        | 0.8      |
| 33 (L) | 3.4 | 4.4   | 4.4      | 4.4      |
| 34 (M) | 4.9 | 0.1   | 4.8      | 4.8      |
| 35 (N) | 0.1 | 4.8   | 0.1      | 0.1      |
| 36 (O) | 0.1 | 5.8   | 0.1      | 0.1      |
| (C)    | 7.3 | 0     | 7.3      | 7.3      |

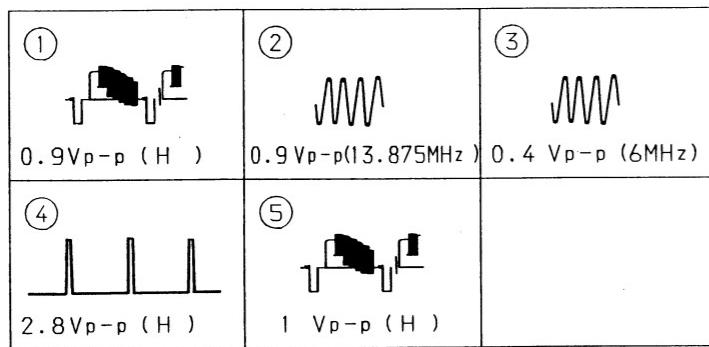


## B BOARD IC302 TDA8442-N3





## • WAVEFORMS V BOARD

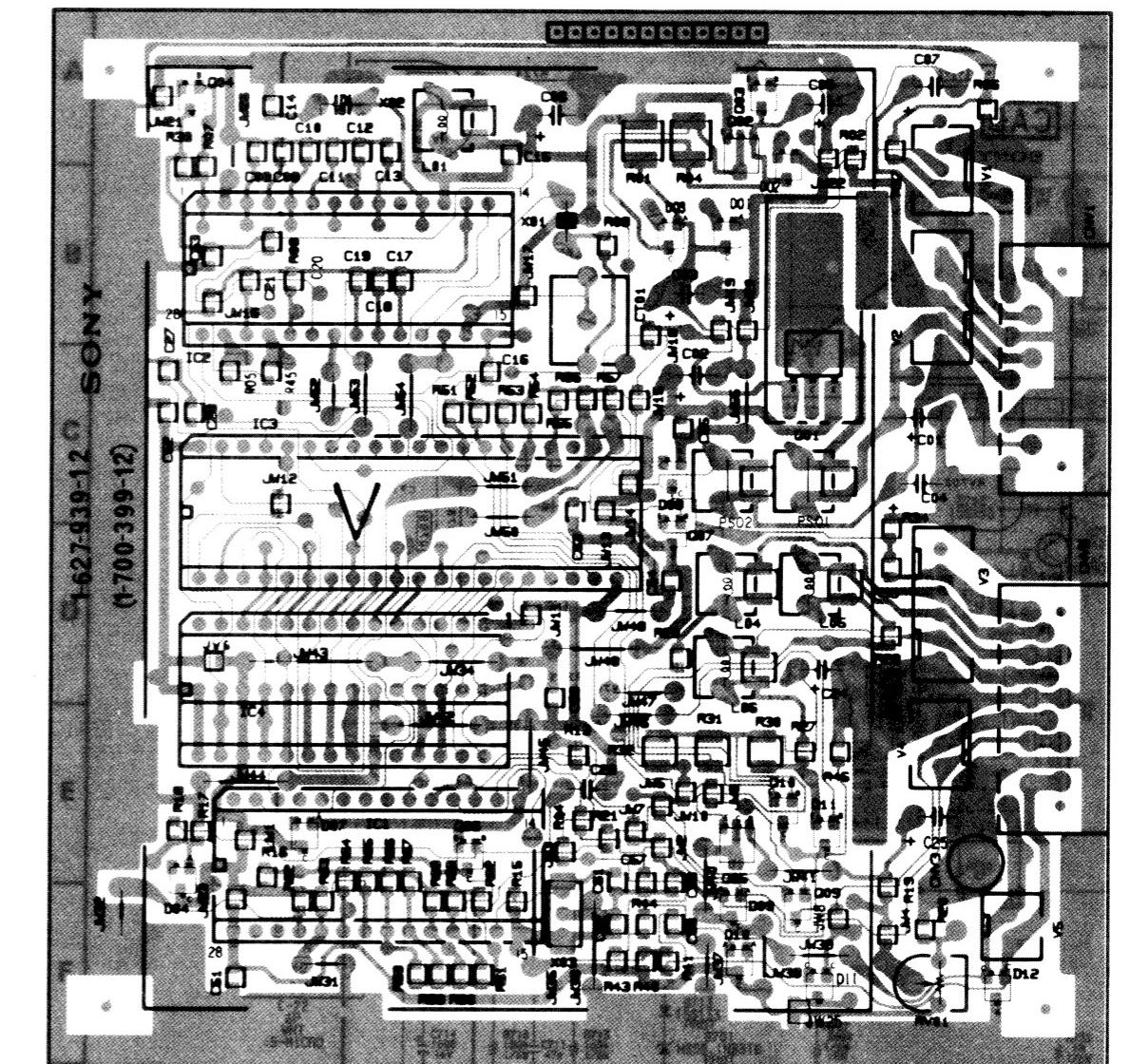
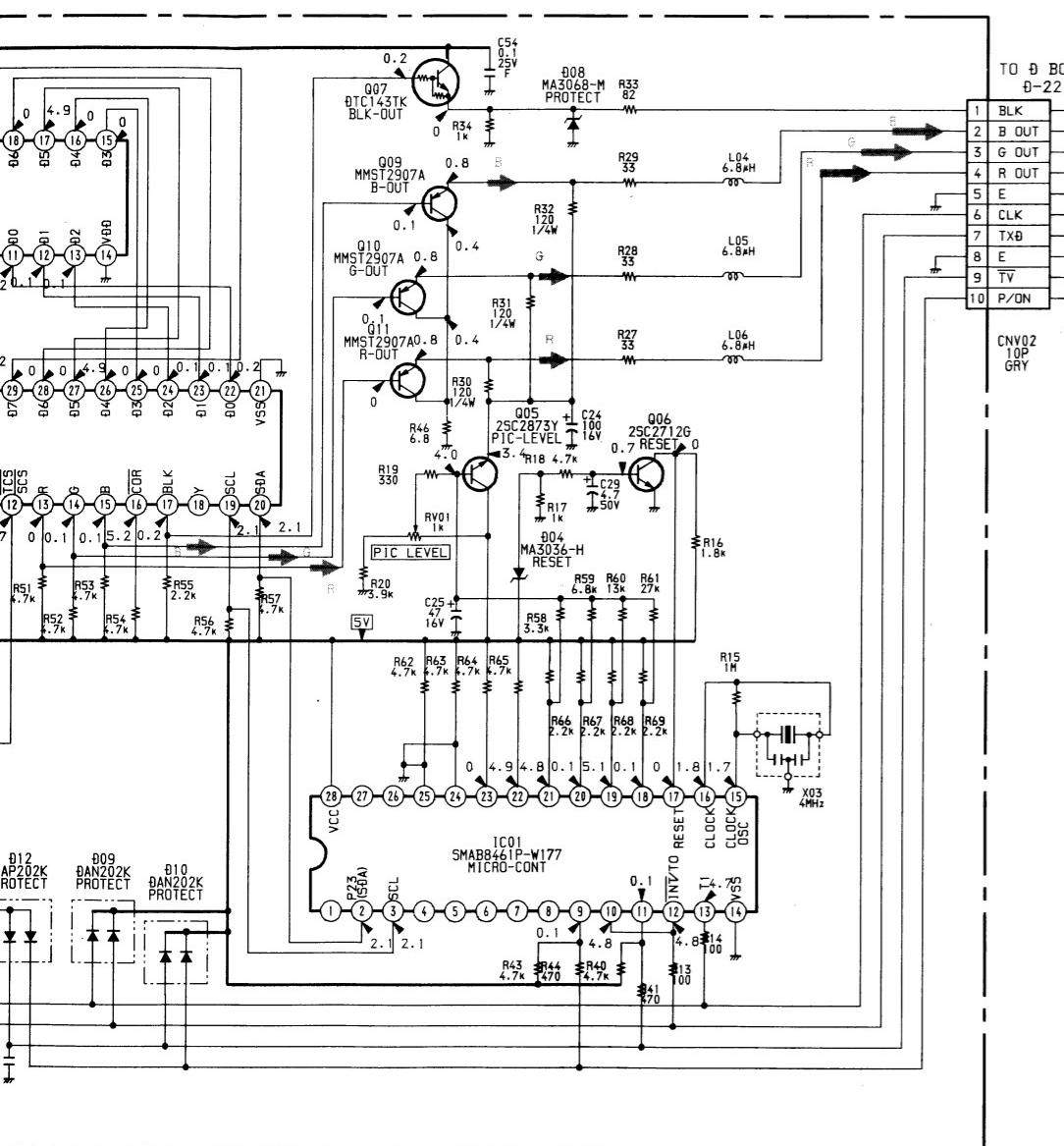


7 | 8 | 9 | 10 | 11 | 12 |

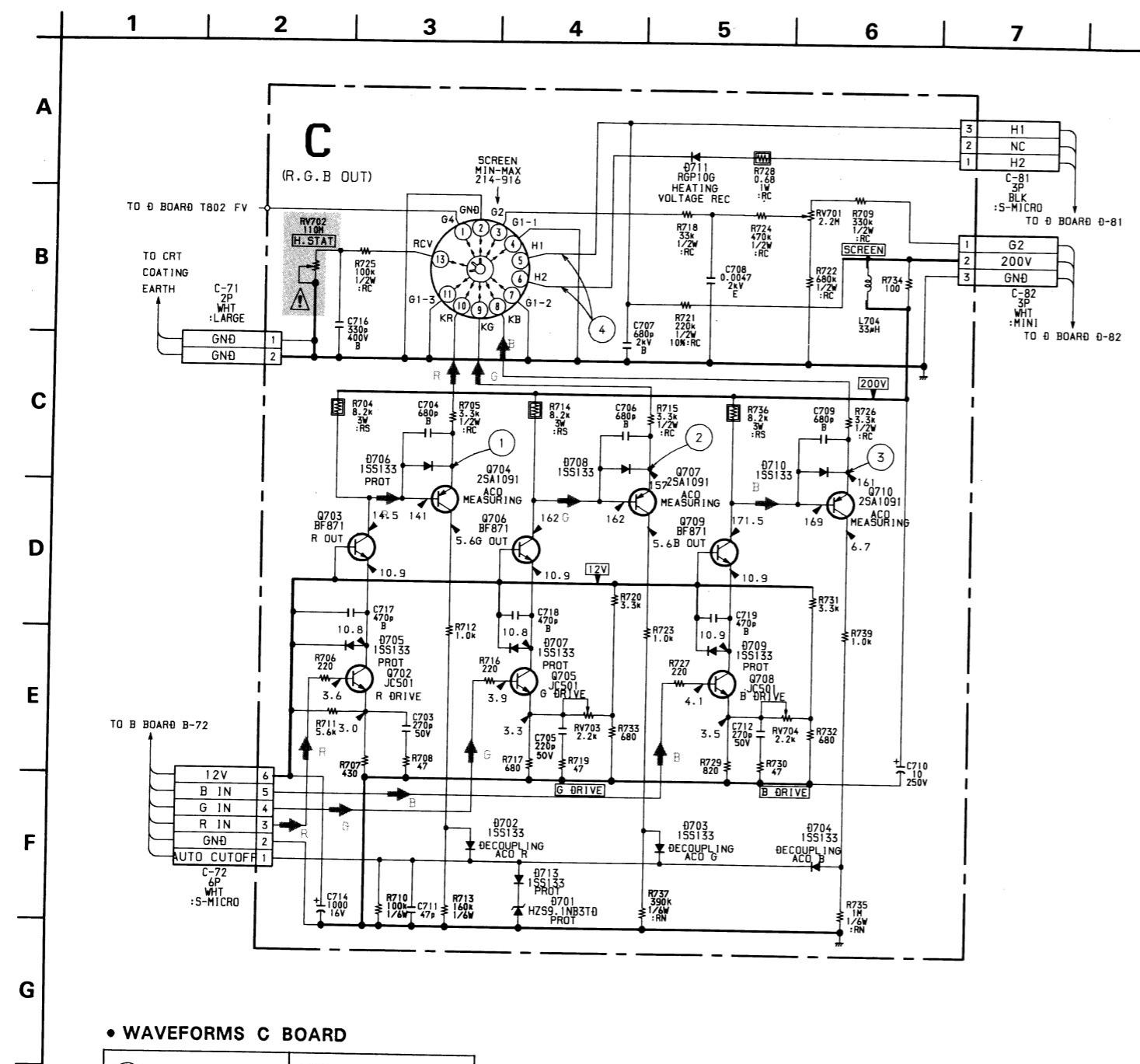
[TEXT]

V

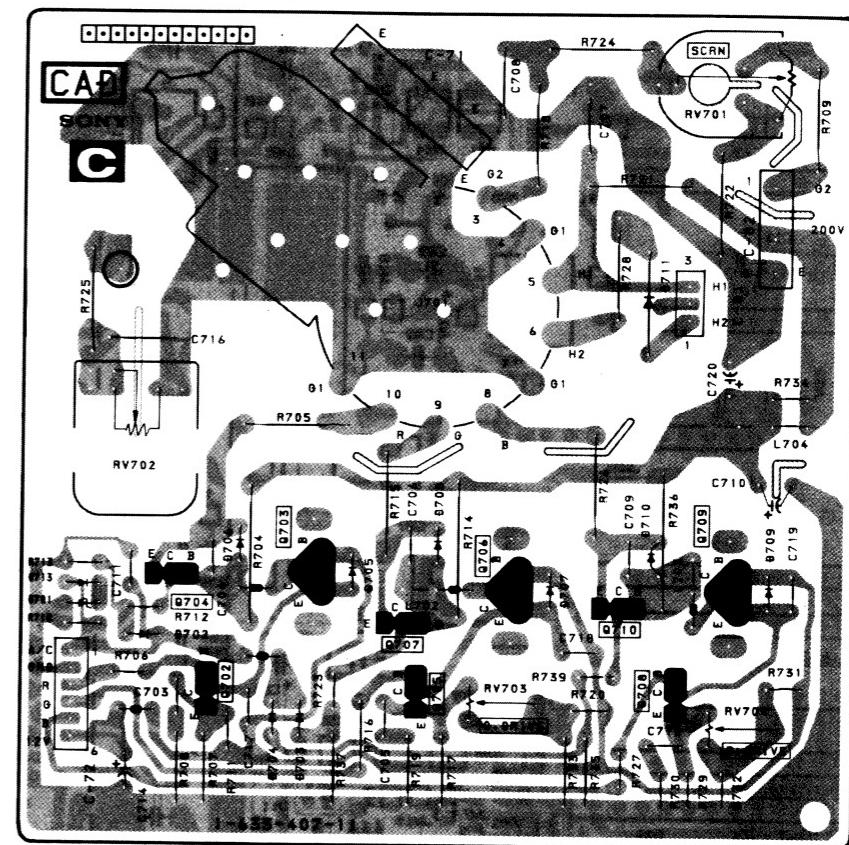
—V Board—



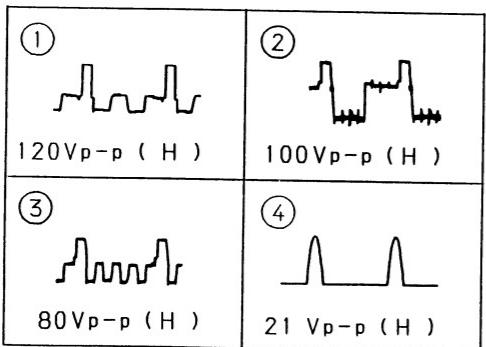
**C** [R · G · B OUT]



-C Board-

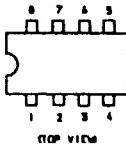


- WAVEFORMS C BOARD

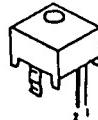


## 5-4. SEMICONDUCTORS

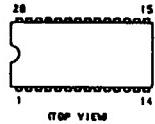
BA4558  
SDA2546  
TBA129  
TEA2014  
TEA2031A  
 $\mu$ PC4558C



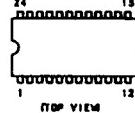
BX1387



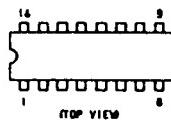
CXA1114P  
SAA5231-V6  
SMAB8461P-W177  
TC5563APL  
TDA4580  
TDA4650  
TDA6200  
TEA2028B  
TMM2063P-70



CXD1050A  
TD6710AN



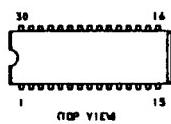
MC14053BCP  
PCF8574  
TC4049BP  
TC4053BP  
TDA4510/V6  
TDA4660  
TDA8442-N3  
TEA2260



SDA2083  
SDA5243



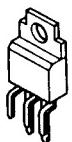
TA8662N



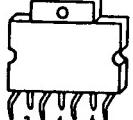
TC6011N



TDA2050



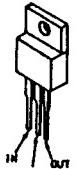
TDA8170



TYA7812CT



$\mu$ PC24M05HF



JA101  
JC501  
2SA1091  
2SD789



2SB734  
2SD773  
2SD774



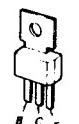
2SB1185  
2SD1761



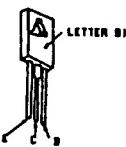
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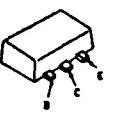
BF871



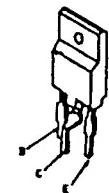
2SC2688



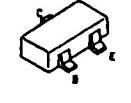
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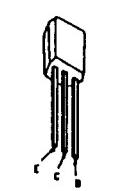
2SD1548-LB  
2SD1941



DTA144EK  
DTC114EK  
DTC124EK  
DTC143TK  
DTC144EK  
MMST2907A  
2SA1162G  
2SC2712



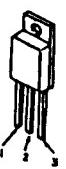
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DTC124ES  
DTC144ES  
2SA1162



2SD2096



CTU-12S



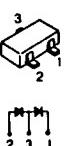
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DAP202K



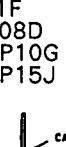
DA204K



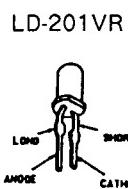
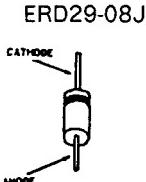
ERC06-15S  
ERC25-06S



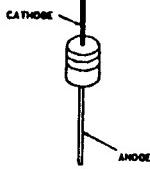
ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J



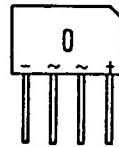
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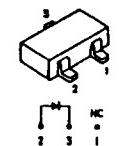
HZS10NB3TD  
HZS11NB3TD  
HZS13NB2TD  
HZS15NB1TD  
HZS33NB1TD  
HZS36NB4TD  
HZS4.7NB2TD  
HZS5.6NB2TD  
HZS5.6NB3TD  
HZS6.2NB2TD  
HZS6.8NB3TD  
HZS7.5NB3TD  
HZS9.1NB3TD  
RD5.6ES-B2  
1SS133



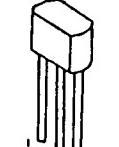
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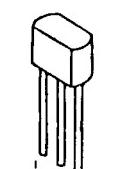
MA3036H  
MA3056M  
MA3068M  
MA3130L



MC911



MC921



## SECTION 6 EXPLODED VIEWS

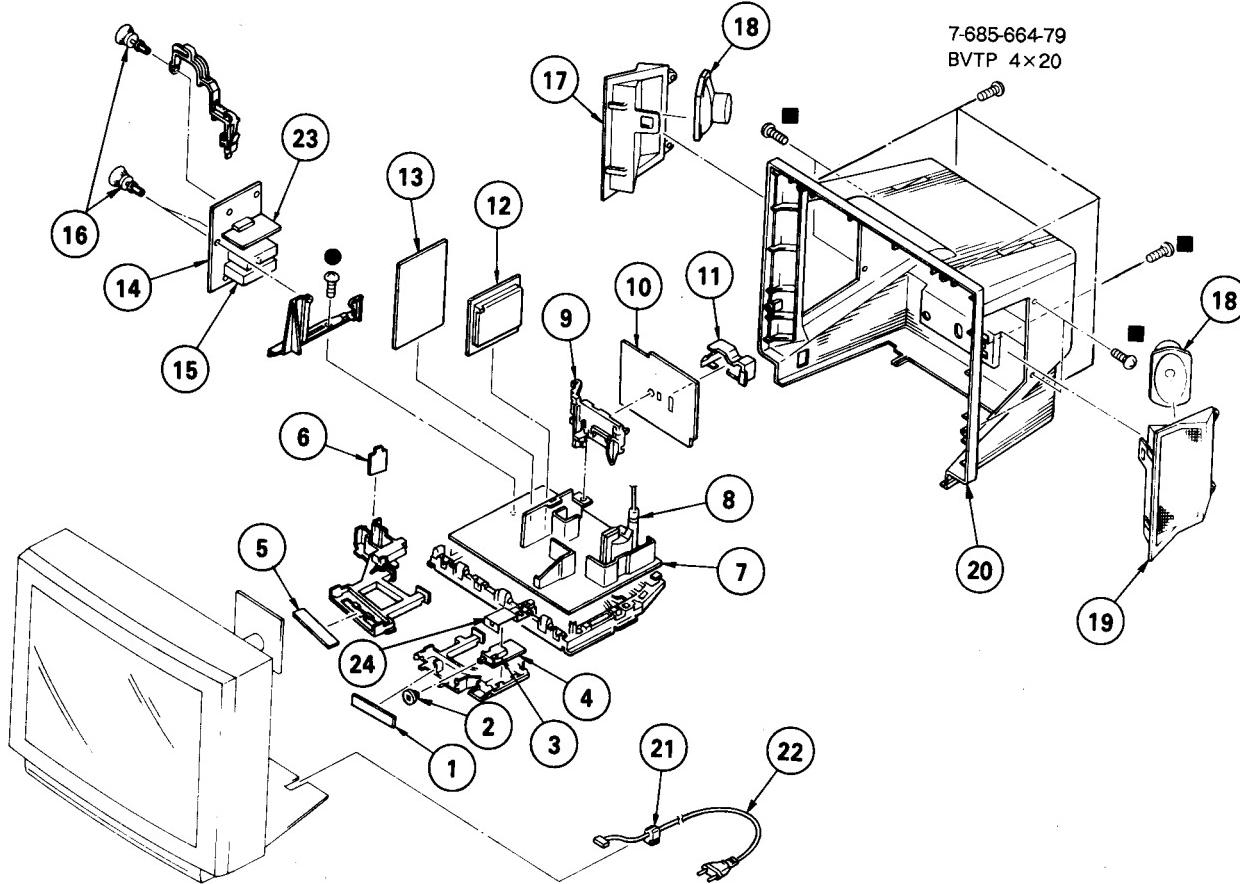
## NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ▲ are critical for safety.  
Replace only with part number specified.

**6-1. CHASSIS**

- : BVTP 3×12 7-685-648-79
- : BVTP 4×16 7-685-663-79



| REF. NO. | PART NO.       | DESCRIPTION                          | REMARK | REF. NO. | PART NO.       | DESCRIPTION                     | REMARK |
|----------|----------------|--------------------------------------|--------|----------|----------------|---------------------------------|--------|
| 1        | *1-633-410-11  | H2 BOARD                             |        | 13       | *A-1621-010-A  | B BOARD, COMPLETE               |        |
| 2        | 4-386-611-01   | COVER, SWITCH                        |        | 14       | *A-1632-005-A  | A BOARD, COMPLETE               |        |
| 3        | ▲ 1-571-433-11 | SWITCH, PUSH (AC POWER)              | ▲      | 15       | ▲ 1-465-301-11 | TUNER, ET (UX-816(PLL))         |        |
| 4        | *1-633-408-11  | F BOARD                              |        | 16       | 4-386-618-01   | RIVET, T TYPE                   |        |
| 5        | *1-633-409-11  | H1 BOARD                             |        | 17       | X-4200-025-1   | BAFFLE (L) ASSY, BOARD          |        |
| 6        | *1-633-411-11  | J2 BOARD                             |        | 18       |                | SPEAKER                         |        |
| 7        | *A-1642-010-A  | D BOARD, COMPLETE                    |        | 19       | X-4200-026-1   | BAFFLE (R) ASSY, BOARD          |        |
| 8        | ▲ 1-439-416-11 | TRANSFORMER ASSY, PLAYBACK (UX-1600) | ▲      | 20       | 4-200-158-01   | COVER, REAR                     |        |
| 9        | *4-386-624-11  | BRACKET, J                           |        | 21       | ▲ 4-389-201-02 | HOLDER, AC CORD                 |        |
| 10       | *A-1651-014-A  | J1 BOARD, COMPLETE                   |        | 22       | ▲ 1-575-487-11 | CORD, POWER (WITH NOISE FILTER) |        |
| 11       | 4-200-014-01   | BRACKET, TERMINAL                    |        | 23       | *A-1654-003-A  | IFG BOARD, COMPLETE             |        |
| 12       | *A-1347-031-A  | V BOARD, COMPLETE                    |        | 24       | 4-200-274-01   | COVER, POWER SWITCH             |        |

SECTION 7  
ELECTRICAL PARTS LIST

V

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

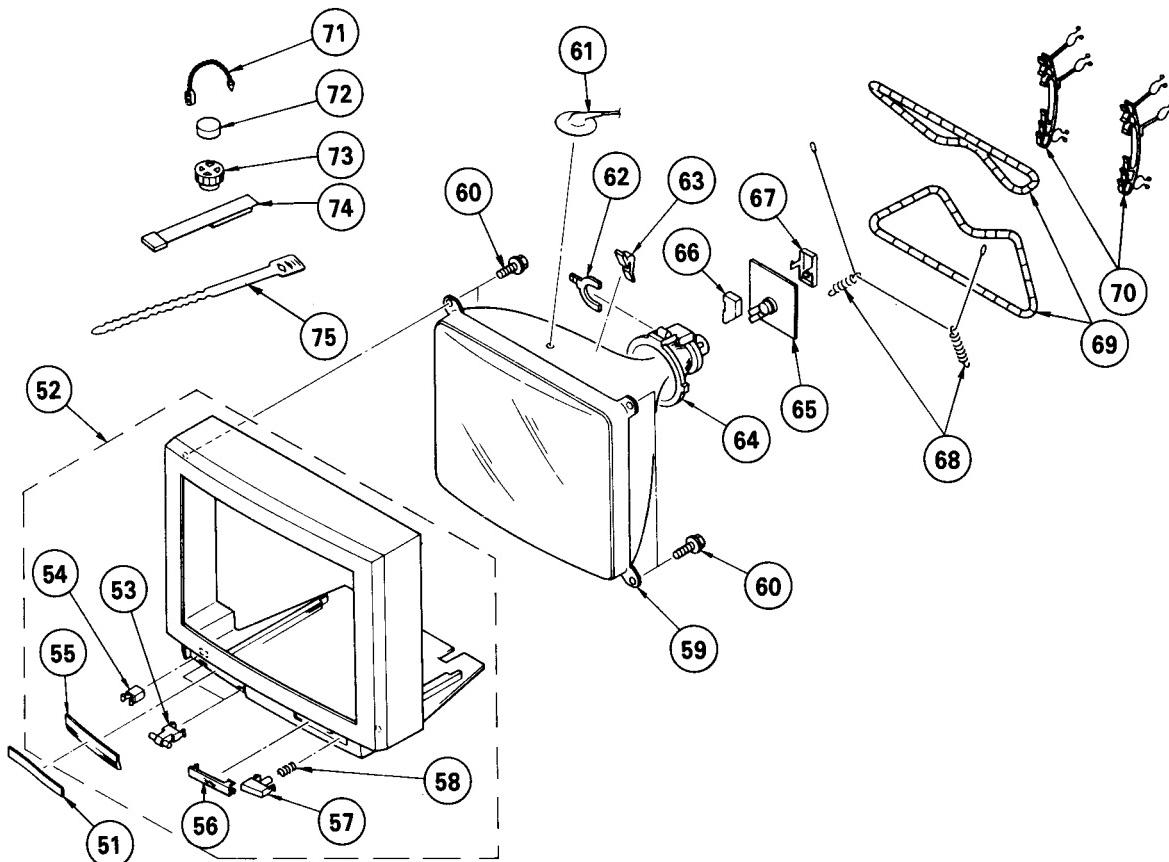
CAPACITORS COILS  
• MF :  $\mu$ F, PF :  $\mu\mu$ F • MMH : mH, UH :  $\mu$ H

## RESISTORS

- All resistors are in ohms
- F : nonflammable

| REF. NO.                                   | PART NO.      | DESCRIPTION                   | REMARK  | REF. NO.     | PART NO.    | DESCRIPTION  | REMARK  |      |
|--|---------------|-------------------------------|---------|--------------|-------------|--------------|---|------|
| *A-1347-031-A V BOARD, COMPLETE<br>*****   |               |                               |         |              |             |              |   |      |
| *4-380-699-01 CASE (UPPER LID), SHIELD, A1 |               |                               |         |              |             |              |   |      |
| <CAPACITOR>                                |               |                               |         |              |             |              |   |      |
| C02  | 1-124-120-11  | ELECT                         | 220MF   | 20%          | 16V         | D01          | 8-719-105-91 DIODE RD5.6M-B2                  |      |
| C03  | 1-124-119-00  | ELECT                         | 330MF   | 20%          | 16V         | D02          | 8-719-106-79 DIODE RD13M-B1                   |      |
| C05  | 1-126-101-11  | ELECT                         | 100MF   | 20%          | 16V         | D03          | 8-719-400-18 DIODE MA152WK                    |      |
| C06  | 1-124-120-11  | ELECT                         | 220MF   | 20%          | 16V         | D04          | 8-719-105-52 DIODE RD3.6M-B2                  |      |
| C07  | 1-124-791-11  | ELECT                         | 1MF     | 20%          | 50V         | D07          | 8-719-106-17 DIODE RD6.8M-B2                  |      |
| C08  | 1-163-097-00  | CERAMIC CHIP                  | 15PF    | 5%           | 50V         | D08          | 8-719-106-17 DIODE RD6.8M-B2                  |      |
| C09  | 1-163-141-00  | CERAMIC CHIP                  | 0.001MF | 5%           | 50V         | D09          | 8-719-400-18 DIODE MA152WK                    |      |
| C10  | 1-163-133-00  | CERAMIC CHIP                  | 470PF   | 5%           | 50V         | D10          | 8-719-400-18 DIODE MA152WK                    |      |
| C11  | 1-163-037-11  | CERAMIC CHIP                  | 0.022MF | 10%          | 25V         | D11          | 8-719-914-44 DIODE DAP202K                    |      |
| C12  | 1-163-127-00  | CERAMIC CHIP                  | 270PF   | 5%           | 50V         | D12          | 8-719-914-44 DIODE DAP202K                    |      |
| C13  | 1-163-117-00  | CERAMIC CHIP                  | 100PF   | 5%           | 50V         | IC1          | 8-759-986-92 IC MAB-846IP-W177                |      |
| C14  | 1-163-097-00  | CERAMIC CHIP                  | 15PF    | 5%           | 50V         | IC2          | 8-759-972-96 IC SAA5231-V6                    |      |
| C15  | 1-163-103-00  | CERAMIC CHIP                  | 27PF    | 5%           | 50V         | IC3          | 8-759-032-98 IC SDA5243                       |      |
| C16  | 1-164-232-11  | CERAMIC CHIP                  | 0.01MF  | 10%          | 50V         | IC4          | 8-759-230-68 IC TMM2063P-70                   |      |
| C17  | 1-163-809-11  | CERAMIC CHIP                  | 0.047MF | 10%          | 25V         | <IC>         |   |      |
| C18  | 1-163-099-00  | CERAMIC CHIP                  | 18PF    | 5%           | 50V         | L01          | 1-408-411-00 INDUCTOR 15UH                    |      |
| C19  | 1-163-809-11  | CERAMIC CHIP                  | 0.047MF | 10%          | 25V         | L04          | 1-408-407-00 INDUCTOR 6.8UH                   |      |
| C20  | 1-163-125-00  | CERAMIC CHIP                  | 220PF   | 5%           | 50V         | L05          | 1-408-407-00 INDUCTOR 6.8UH                   |      |
| C21  | 1-163-833-00  | CERAMIC CHIP                  | 0.068MF |              | 25V         | L06          | 1-408-407-00 INDUCTOR 6.8UH                   |      |
| C24  | 1-126-101-11  | ELECT                         | 100MF   | 20%          | 16V         | <COIL>       |   |      |
| C25  | 1-124-477-11  | ELECT                         | 47MF    | 20%          | 16V         | PS01         | $\Delta$ 1-532-679-91 LINK, IC (ICP-N15) 0.6A |      |
| C27  | 1-163-129-00  | CERAMIC CHIP                  | 330PF   | 5%           | 50V         | PS02         | $\Delta$ 1-532-727-91 LINK, IC 0.25A          |      |
| C28  | 1-163-137-00  | CERAMIC CHIP                  | 680PF   | 5%           | 50V         | <IC LINK>    |   |      |
| C29  | 1-124-927-11  | ELECT                         | 4.7MF   | 20%          | 50V         | <TRANSISTOR> |   |      |
| C51  | 1-163-038-00  | CERAMIC CHIP                  | 0.1MF   |              | 25V         | Q3           | 8-729-900-53 TRANSISTOR DTC114EK              |      |
| C52  | 1-163-038-00  | CERAMIC CHIP                  | 0.1MF   |              | 25V         | Q01          | 8-729-107-26 TRANSISTOR 2SD1585-K             |      |
| C53  | 1-163-038-00  | CERAMIC CHIP                  | 0.1MF   |              | 25V         | Q02          | 8-729-807-50 TRANSISTOR 2SD1623-R             |      |
| C54  | 1-163-038-00  | CERAMIC CHIP                  | 0.1MF   |              | 25V         | Q04          | 8-729-271-22 TRANSISTOR 2SC2712-G             |      |
| C55  | 1-163-038-00  | CERAMIC CHIP                  | 0.1MF   |              | 25V         | Q05          | 8-729-807-50 TRANSISTOR 2SD1623-R             |      |
| C56  | 1-163-038-00  | CERAMIC CHIP                  | 0.1MF   |              | 25V         | Q06          | 8-729-271-22 TRANSISTOR 2SC2712-G             |      |
| C57  | 1-163-141-00  | CERAMIC CHIP                  | 0.001MF | 5%           | 50V         | Q07          | 8-729-900-98 TRANSISTOR DTC143TK              |      |
| C58  | 1-163-141-00  | CERAMIC CHIP                  | 0.001MF | 5%           | 50V         | Q09          | 8-729-807-87 TRANSISTOR 2SB1295-UL6           |      |
| C59  | 1-163-141-00  | CERAMIC CHIP                  | 0.001MF | 5%           | 50V         | Q10          | 8-729-807-87 TRANSISTOR 2SB1295-UL6           |      |
| <CONNECTOR>                                |               |                               |         |              |             |              |   |      |
| CNV01                                      | *1-565-393-11 | CONNECTOR, BOARD TO BOARD     |         |              |             |              |   |      |
| CNV02                                      | *1-565-393-11 | CONNECTOR, BOARD TO BOARD     |         |              |             |              |   |      |
| CNV03                                      | *1-508-784-00 | PIN, CONNECTOR (5MM PITCH) 1P |         |              |             |              |   |      |
| <RESISTOR>                                 |               |                               |         |              |             |              |   |      |
| CT01                                       | 1-141-392-11  | CAP, VAR, TRIMMER (1 GANG)    | JW1     | 1-216-295-00 | METAL GLAZE | 0            | 5%  | 1/1W |
|  |               |                               | JW2     | 1-216-295-00 | METAL GLAZE | 0            | 5%  | 1/1W |
|  |               |                               | JW3     | 1-216-295-00 | METAL GLAZE | 0            | 5%  | 1/1W |
|  |               |                               | JW4     | 1-216-295-00 | METAL GLAZE | 0            | 5%  | 1/1W |
|  |               |                               | JW5     | 1-216-295-00 | METAL GLAZE | 0            | 5%  | 1/1W |
|  |               |                               | JW6     | 1-216-295-00 | METAL GLAZE | 0            | 5%  | 1/1W |

## 6-2. PICTURE TUBE



The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

| REF. NO. | PART NO.              | DESCRIPTION                    | REMARK | REF. NO. | PART NO.              | DESCRIPTION                         | REMARK |
|----------|-----------------------|--------------------------------|--------|----------|-----------------------|-------------------------------------|--------|
| 51       | 4-200-162-01          | COVER, DOOR                    |        | 64       | $\Delta$ 1-451-295-11 | DEFLECTION YOKE (Y21PFA2)           |        |
| 52       | X-4200-027-1          | CABINET ASSY (WITH BEZEL ASSY) | 53-58  | 65       | *A-1638-003-A         | C BOARD, COMPLETE                   |        |
| 53       | 3-703-035-11          | SHAFT, LID                     |        | 66       | *4-379-167-01         | COVER (MAIN), CV                    |        |
| 54       | 4-386-710-01          | CATCHER, PUSH                  |        | 67       | *4-379-160-01         | COVER (REAR LID), CV                |        |
| 55       | 4-200-159-01          | DOOR                           |        | 68       | 4-303-774-99          | SPRING                              |        |
| 56       | 4-200-148-01          | WINDOW, ORNAMENTAL             |        | 69       | $\Delta$ 1-426-383-11 | COIL, DEMAGNETIZATION               |        |
| 57       | 4-200-150-01          | BUTTON, POWER                  |        | 70       | *4-386-622-01         | BAND, DGC                           |        |
| 58       | 4-329-112-21          | SPRING                         |        | 71       | 4-308-870-00          | CLIP, LEAD WIRE                     |        |
| 59       | $\Delta$ 8-738-753-05 | PICTURE TUBE (A51JXH60X)       |        | 72       | 1-452-032-00          | MAGNET, DISK; 10MM $\phi$           |        |
| 60       | 4-382-733-01          | SCREW (S), PT                  |        | 73       | 1-452-094-00          | MAGNET, ROTATABLE DISK; 15MM $\phi$ |        |
| 62       | 1-452-277-00          | MAGNET, BMC                    |        | 74       | X-4309-608-0          | PERMALLOY ASSY, CONVERGENCE         |        |
| 63       | 3-703-961-01          | SPACER, DY                     |        | 75       | 3-701-007-00          | BAND, BINDING                       |        |

V B

| REF. NO. | PART NO.     | DESCRIPTION |      |    | REMARK | REF. NO. | PART NO.     | DESCRIPTION  |         |       | REMARK |
|----------|--------------|-------------|------|----|--------|----------|--------------|--------------|---------|-------|--------|
| JW7      | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  | R64      | 1-216-065-00 | METAL GLAZE  | 4.7K    | 5%    | 1/10W  |
| JW8      | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  | R65      | 1-216-065-00 | METAL GLAZE  | 4.7K    | 5%    | 1/10W  |
| JW9      | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  | R66      | 1-216-057-00 | METAL GLAZE  | 2.2K    | 5%    | 1/10W  |
| JW10     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  | R67      | 1-216-057-00 | METAL GLAZE  | 2.2K    | 5%    | 1/10W  |
| JW11     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  | R68      | 1-216-057-00 | METAL GLAZE  | 2.2K    | 5%    | 1/10W  |
| JW12     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  | R69      | 1-216-057-00 | METAL GLAZE  | 2.2K    | 5%    | 1/10W  |
| JW13     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW14     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW15     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW16     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW17     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW18     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW19     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW20     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW21     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW22     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW23     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW24     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| JW25     | 1-216-295-00 | METAL GLAZE | 0    | 5% | 1/10W  |          |              |              |         |       |        |
| ROI      | 1-218-326-11 | METAL GLAZE | 470  | 5% | 1/2W   |          |              |              |         |       |        |
| R02      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R04      | 1-218-326-11 | METAL GLAZE | 470  | 5% | 1/2W   |          |              |              |         |       |        |
| R05      | 1-216-025-00 | METAL GLAZE | 100  | 5% | 1/10W  |          |              |              |         |       |        |
| R06      | 1-216-049-00 | METAL GLAZE | 1K   | 5% | 1/10W  |          |              |              |         |       |        |
| R07      | 1-216-025-00 | METAL GLAZE | 100  | 5% | 1/10W  |          |              |              |         |       |        |
| R08      | 1-216-037-00 | METAL GLAZE | 330  | 5% | 1/10W  |          |              |              |         |       |        |
| R09      | 1-216-091-00 | METAL GLAZE | 56K  | 5% | 1/10W  |          |              |              |         |       |        |
| R13      | 1-216-025-00 | METAL GLAZE | 100  | 5% | 1/10W  |          |              |              |         |       |        |
| R14      | 1-216-025-00 | METAL GLAZE | 100  | 5% | 1/10W  |          |              |              |         |       |        |
| R15      | 1-216-121-00 | METAL GLAZE | 1M   | 5% | 1/10W  |          |              |              |         |       |        |
| R16      | 1-216-055-00 | METAL GLAZE | 1.8K | 5% | 1/10W  |          |              |              |         |       |        |
| R17      | 1-216-049-00 | METAL GLAZE | 1K   | 5% | 1/10W  |          |              |              |         |       |        |
| R18      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R19      | 1-216-037-00 | METAL GLAZE | 330  | 5% | 1/10W  |          |              |              |         |       |        |
| R20      | 1-216-063-00 | METAL GLAZE | 3.9K | 5% | 1/10W  |          |              |              |         |       |        |
| R27      | 1-216-013-00 | METAL GLAZE | 33   | 5% | 1/10W  |          |              |              |         |       |        |
| R28      | 1-216-013-00 | METAL GLAZE | 33   | 5% | 1/10W  |          |              |              |         |       |        |
| R29      | 1-216-013-00 | METAL GLAZE | 33   | 5% | 1/10W  |          |              |              |         |       |        |
| R30      | 1-218-325-11 | METAL GLAZE | 120  | 5% | 1/4W   |          |              |              |         |       |        |
| R31      | 1-218-325-11 | METAL GLAZE | 120  | 5% | 1/4W   |          |              |              |         |       |        |
| R32      | 1-218-325-11 | METAL GLAZE | 120  | 5% | 1/4W   |          |              |              |         |       |        |
| R33      | 1-216-023-00 | METAL GLAZE | 82   | 5% | 1/10W  |          |              |              |         |       |        |
| R34      | 1-216-049-00 | METAL GLAZE | 1K   | 5% | 1/10W  |          |              |              |         |       |        |
| R37      | 1-216-025-00 | METAL GLAZE | 100  | 5% | 1/10W  |          |              |              |         |       |        |
| R38      | 1-216-047-00 | METAL GLAZE | 820  | 5% | 1/10W  |          |              |              |         |       |        |
| R40      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R41      | 1-216-041-00 | METAL GLAZE | 470  | 5% | 1/10W  |          |              |              |         |       |        |
| R43      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R44      | 1-216-041-00 | METAL GLAZE | 470  | 5% | 1/10W  |          |              |              |         |       |        |
| R45      | 1-216-049-00 | METAL GLAZE | 1K   | 5% | 1/10W  |          |              |              |         |       |        |
| R46      | 1-216-311-00 | METAL GLAZE | 6.8  | 5% | 1/10W  |          |              |              |         |       |        |
| R51      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R52      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R53      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R54      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R55      | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W  |          |              |              |         |       |        |
| R56      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R57      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R58      | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W  |          |              |              |         |       |        |
| R59      | 1-216-069-00 | METAL GLAZE | 6.8K | 5% | 1/10W  |          |              |              |         |       |        |
| R60      | 1-216-076-00 | METAL GLAZE | 13K  | 5% | 1/10W  |          |              |              |         |       |        |
| R61      | 1-216-083-00 | METAL GLAZE | 27K  | 5% | 1/10W  |          |              |              |         |       |        |
| R62      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
| R63      | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W  |          |              |              |         |       |        |
|          |              |             |      |    |        | C301     | 1-106-228-00 | MYLAR        | 0.22MF  | 10%   | 100V   |
|          |              |             |      |    |        | C302     | 1-106-228-00 | MYLAR        | 0.22MF  | 10%   | 100V   |
|          |              |             |      |    |        | C303     | 1-124-122-11 | ELECT        | 100MF   | 20%   | 50V    |
|          |              |             |      |    |        | C304     | 1-106-228-00 | MYLAR        | 0.22MF  | 10%   | 100V   |
|          |              |             |      |    |        | C305     | 1-124-119-00 | ELECT        | 330MF   | 20%   | 16V    |
|          |              |             |      |    |        |          |              |              |         |       |        |
|          |              |             |      |    |        | C306     | 1-124-902-00 | ELECT        | 0.47MF  | 20%   | 50V    |
|          |              |             |      |    |        | C307     | 1-124-902-00 | ELECT        | 0.47MF  | 20%   | 50V    |
|          |              |             |      |    |        | C308     | 1-124-902-00 | ELECT        | 0.47MF  | 20%   | 50V    |
|          |              |             |      |    |        | C309     | 1-124-902-00 | ELECT        | 0.47MF  | 20%   | 50V    |
|          |              |             |      |    |        | C310     | 1-106-220-00 | MYLAR        | 0.1MF   | 10%   | 100V   |
|          |              |             |      |    |        | C311     | 1-106-220-00 | MYLAR        | 0.1MF   | 10%   | 100V   |
|          |              |             |      |    |        | C312     | 1-124-902-00 | ELECT        | 0.47MF  | 20%   | 50V    |
|          |              |             |      |    |        | C313     | 1-124-902-00 | ELECT        | 0.47MF  | 20%   | 50V    |
|          |              |             |      |    |        | C314     | 1-124-902-00 | ELECT        | 0.47MF  | 20%   | 50V    |
|          |              |             |      |    |        | C315     | 1-124-791-11 | ELECT        | 1MF     | 20%   | 50V    |
|          |              |             |      |    |        |          |              |              |         |       |        |
|          |              |             |      |    |        | C316     | 1-106-220-00 | MYLAR        | 0.1MF   | 10%   | 100V   |
|          |              |             |      |    |        | C317     | 1-124-910-11 | ELECT        | 47MF    | 20%   | 50V    |
|          |              |             |      |    |        | C318     | 1-106-220-00 | MYLAR        | 0.1MF   | 10%   | 100V   |
|          |              |             |      |    |        | C320     | 1-163-121-00 | CERAMIC CHIP | 150PF   | 5%    | 50V    |
|          |              |             |      |    |        | C321     | 1-163-127-00 | CERAMIC CHIP | 270PF   | 5%    | 50V    |
|          |              |             |      |    |        | C322     | 1-163-121-00 | CERAMIC CHIP | 150PF   | 5%    | 50V    |
|          |              |             |      |    |        | C323     | 1-102-947-00 | CERAMIC CHIP | 10PF    | 0.5PF | 50V    |
|          |              |             |      |    |        | C327     | 1-164-232-11 | CERAMIC CHIP | 0.01MF  | 50V   |        |
|          |              |             |      |    |        | C330     | 1-163-113-00 | CERAMIC CHIP | 68PF    | 5%    | 50V    |
|          |              |             |      |    |        | C331     | 1-106-220-00 | MYLAR        | 0.1MF   | 10%   | 100V   |
|          |              |             |      |    |        | C332     | 1-126-103-11 | ELECT        | 470MF   | 20%   | 16V    |
|          |              |             |      |    |        | C333     | 1-106-375-12 | MYLAR        | 0.022MF | 10%   | 250V   |
|          |              |             |      |    |        | C334     | 1-163-097-00 | CERAMIC CHIP | 15PF    | 5%    | 50V    |
|          |              |             |      |    |        | C335     | 1-163-097-00 | CERAMIC CHIP | 15PF    | 5%    | 50V    |
|          |              |             |      |    |        | C336     | 1-102-816-00 | CERAMIC      | 120PF   | 5%    | 50V    |
|          |              |             |      |    |        | C337     | 1-101-004-00 | CERAMIC      | 0.01MF  | 50V   |        |
|          |              |             |      |    |        | C338     | 1-106-220-00 | MYLAR        | 0.1MF   | 10%   | 100V   |
|          |              |             |      |    |        | C339     | 1-106-220-00 | MYLAR        | 0.1MF   | 10%   | 100V   |
|          |              |             |      |    |        | C341     | 1-163-125-00 | CERAMIC CHIP | 220PF   | 5%    | 50V    |
|          |              |             |      |    |        | C343     | 1-106-383-00 | MYLAR        | 0.047MF | 10%   | 100V   |
|          |              |             |      |    |        | C344     | 1-130-783-00 | MYLAR        | 0.33MF  | 10%   | 100V   |
|          |              |             |      |    |        | C345     | 1-163-123-00 | CERAMIC CHIP | 180PF   | 5%    | 50V    |

**B**

| REF. NO.     | PART NO.     | DESCRIPTION          | REMARK | REF. NO. | PART NO. | DESCRIPTION        | REMARK         |
|--------------|--------------|----------------------|--------|----------|----------|--------------------|----------------|
| C346         | 1-163-033-00 | CERAMIC CHIP 0.022MF |        |          | 50V      | <IC>               |                |
| C347         | 1-124-791-11 | ELECT 1MF            | 20%    |          | 50V      | IC301 8-759-979-85 | IC TDA4580-V4  |
| C348         | 1-124-791-11 | ELECT 1MF            | 20%    |          | 50V      | IC302 8-759-980-60 | IC TDA8442N3   |
| C349         | 1-101-004-00 | CERAMIC 0.01MF       |        |          | 50V      | IC303 8-759-040-53 | IC MC14053BCP  |
| C350         | 1-101-004-00 | CERAMIC 0.01MF       |        |          | 50V      | IC331 8-759-990-29 | IC TDA4650     |
| C351         | 1-106-375-12 | MYLAR 0.022MF        | 10%    |          | 250V     | IC332 8-759-990-30 | IC TDA4660     |
| C352         | 1-106-375-12 | MYLAR 0.022MF        | 10%    |          | 250V     |                    |                |
| C353         | 1-163-063-00 | CERAMIC CHIP 0.022MF | 10%    |          | 50V      |                    |                |
| C354         | 1-124-910-11 | ELECT 47MF           | 20%    |          | 50V      |                    |                |
| C357         | 1-163-117-00 | CERAMIC CHIP 100PF   | 5%     |          | 50V      |                    |                |
| C358         | 1-124-917-11 | ELECT 33MF           | 20%    |          | 50V      | L301 1-410-868-11  | INDUCTOR 4.7UH |
| C359         | 1-163-103-00 | CERAMIC CHIP 27PF    | 5%     |          | 50V      | L302 1-410-868-11  | INDUCTOR 4.7UH |
| C360         | 1-101-004-00 | CERAMIC 0.01MF       |        |          | 50V      | L303 1-408-408-00  | INDUCTOR 8.2UH |
| C364         | 1-163-105-00 | CERAMIC CHIP 33PF    | 5%     |          | 50V      | L331 1-404-554-11  | COIL           |
| C365         | 1-124-910-11 | ELECT 47MF           | 20%    |          | 50V      | L336 1-404-554-11  | COIL           |
| C366         | 1-126-103-11 | ELECT 470MF          | 20%    |          | 16V      | L338 1-408-409-00  | INDUCTOR 10UH  |
| C367         | 1-101-004-00 | CERAMIC 0.01MF       |        |          | 50V      | L1301 1-408-425-00 | INDUCTOR 220UH |
| C381         | 1-124-902-00 | ELECT 0.47MF         | 20%    |          | 50V      | L1302 1-408-419-00 | INDUCTOR 68UH  |
| C382         | 1-124-927-11 | ELECT 4.7MF          | 20%    |          | 50V      |                    |                |
| C384         | 1-124-910-11 | ELECT 47MF           | 20%    |          | 50V      |                    |                |
| C385         | 1-124-927-11 | ELECT 4.7MF          | 20%    |          | 50V      |                    |                |
| C386         | 1-124-927-11 | ELECT 4.7MF          | 20%    |          | 50V      |                    |                |
| C387         | 1-130-833-00 | MYLAR 0.82MF         | 10%    |          | 63V      |                    |                |
| C388         | 1-106-220-00 | MYLAR 0.1MF          | 10%    |          | 100V     |                    |                |
| C401         | 1-101-361-00 | CERAMIC 150PF        | 5%     |          | 50V      |                    |                |
| C402         | 1-163-197-00 | CERAMIC CHIP 470PF   | 5%     |          | 50V      |                    |                |
| C403         | 1-164-232-11 | CERAMIC CHIP 0.01MF  |        |          | 50V      |                    |                |
| C1311        | 1-163-111-00 | CERAMIC CHIP 56PF    | 5%     |          | 50V      |                    |                |
| C1312        | 1-163-101-00 | CERAMIC CHIP 22PF    | 5%     |          | 50V      |                    |                |
| C1313        | 1-102-953-00 | CERAMIC 18PF         | 5%     |          | 50V      |                    |                |
| <TRIMMER>    |              |                      |        |          |          |                    |                |
| CT331        | 1-141-418-11 | CAP, ADJ             |        |          |          |                    |                |
| CT332        | 1-141-418-11 | CAP, ADJ             |        |          |          |                    |                |
| <DIODE>      |              |                      |        |          |          |                    |                |
| D301         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D302         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D303         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D304         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D305         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D307         | 8-719-929-24 | DIODE HZS11NB3       |        |          |          |                    |                |
| D308         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D309         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D310         | 8-719-929-24 | DIODE HZS11NB3       |        |          |          |                    |                |
| D311         | 8-719-929-24 | DIODE HZS11NB3       |        |          |          |                    |                |
| D312         | 8-719-929-24 | DIODE HZS11NB3       |        |          |          |                    |                |
| D313         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D314         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D315         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D316         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D317         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D318         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D319         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D320         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D331         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D332         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D333         | 8-719-911-19 | DIODE ISS119         |        |          |          |                    |                |
| D350         | 8-719-928-94 | DIODE HZS5.6NB3      |        |          |          |                    |                |
| <RESISTOR>   |              |                      |        |          |          |                    |                |
| JR384        | 1-216-295-00 | METAL GLAZE 0        | 5%     |          |          |                    |                |
| JR390        | 1-216-295-00 | METAL GLAZE 0        | 5%     |          |          |                    |                |
| R301         | 1-249-409-11 | CARBON 220           | 5%     |          |          |                    |                |
| R302         | 1-249-409-11 | CARBON 220           | 5%     |          |          |                    |                |
| R303         | 1-249-409-11 | CARBON 220           | 5%     |          |          |                    |                |
| R304         | 1-249-409-11 | CARBON 220           | 5%     |          |          |                    |                |
| R305         | 1-216-057-00 | METAL GLAZE 2.2K     | 5%     |          |          |                    |                |
| R307         | 1-216-097-00 | METAL GLAZE 100K     | 5%     |          |          |                    |                |
| R308         | 1-216-184-00 | METAL GLAZE 270      | 5%     |          |          |                    |                |
| R309         | 1-216-025-00 | METAL GLAZE 100      | 5%     |          |          |                    |                |
| R310         | 1-216-025-00 | METAL GLAZE 100      | 5%     |          |          |                    |                |
| R311         | 1-216-025-00 | METAL GLAZE 100      | 5%     |          |          |                    |                |
| R312         | 1-249-409-11 | CARBON 220           | 5%     |          |          |                    |                |
| R313         | 1-216-081-00 | METAL GLAZE 22K      | 5%     |          |          |                    |                |
| R314         | 1-216-182-00 | METAL GLAZE 220      | 5%     |          |          |                    |                |
| R315         | 1-216-027-00 | METAL GLAZE 120      | 5%     |          |          |                    |                |
| R316         | 1-216-027-00 | METAL GLAZE 120      | 5%     |          |          |                    |                |
| R317         | 1-216-027-00 | METAL GLAZE 120      | 5%     |          |          |                    |                |
| R318         | 1-249-429-11 | CARBON 10K           | 5%     |          |          |                    |                |
| <DELAY LINE> |              |                      |        |          |          |                    |                |
| DL332        | 1-236-062-11 | MODULE, Y DELAY LINE |        |          |          |                    |                |
| DL401        | 1-415-613-11 | DELAY LINE, Y        |        |          |          |                    |                |

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

B F A

| REF. NO. | PART NO.     | DESCRIPTION | REMARK        | REF. NO.   | PART NO.     | DESCRIPTION         | REMARK        |
|----------|--------------|-------------|---------------|--|--------------|---------------------|---------------|
| R319     | 1-249-409-11 | CARBON      | 220 5% 1/4W   | R398   | 1-216-081-00 | METAL GLAZE         | 22K 5% 1/10W  |
| R320     | 1-216-198-00 | METAL GLAZE | 1K 5% 1/8W    | R401   | 1-216-053-00 | METAL GLAZE         | 1.5K 5% 1/10W |
| R321     | 1-216-057-00 | METAL GLAZE | 2.2K 5% 1/10W | R402   | 1-216-051-00 | METAL GLAZE         | 1.2K 5% 1/10W |
| R322     | 1-216-055-00 | METAL GLAZE | 1.8K 5% 1/10W | R403   | 1-216-025-00 | METAL GLAZE         | 100 5% 1/10W  |
| R323     | 1-249-422-11 | CARBON      | 2.7K 5% 1/4W  | R404   | 1-216-059-00 | METAL GLAZE         | 2.7K 5% 1/10W |
| R324     | 1-249-429-11 | CARBON      | 10K 5% 1/4W   | R405   | 1-216-065-00 | METAL GLAZE         | 4.7K 5% 1/10W |
| R325     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W  | R406   | 1-216-061-00 | METAL GLAZE         | 3.3K 5% 1/10W |
| R328     | 1-216-009-00 | METAL GLAZE | 22 5% 1/10W   | R407   | 1-216-047-00 | METAL GLAZE         | 820 5% 1/10W  |
| R329     | 1-216-009-00 | METAL GLAZE | 22 5% 1/10W   | R410   | 1-216-184-00 | METAL GLAZE         | 270 5% 1/8W   |
| R330     | 1-216-009-00 | METAL GLAZE | 22 5% 1/10W   | R412   | 1-216-053-00 | METAL GLAZE         | 1.5K 5% 1/10W |
| R331     | 1-216-001-00 | METAL GLAZE | 10 5% 1/10W   | R1301  | 1-216-065-00 | METAL GLAZE         | 4.7K 5% 1/10W |
| R332     | 1-216-184-00 | METAL GLAZE | 270 5% 1/8W   | R1305  | 1-216-001-00 | METAL GLAZE         | 10 5% 1/10W   |
| R333     | 1-216-121-00 | METAL GLAZE | 1M 5% 1/10W   | <VARIABLE RESISTOR>                                  |              |                     |               |
| R334     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W  | <CRYSTAL>  |              |                     |               |
| R335     | 1-247-852-11 | CARBON      | 7.5K 5% 1/4W  | <CRYSTAL>  |              |                     |               |
| R336     | 1-216-061-00 | METAL GLAZE | 3.3K 5% 1/10W | X331   | 1-567-307-11 | OSCILLATOR, CRYSTAL |               |
| R337     | 1-216-184-00 | METAL GLAZE | 270 5% 1/8W   | X332   | 1-567-131-00 | OSCILLATOR, CRYSTAL |               |
| R338     | 1-216-001-00 | METAL GLAZE | 10 5% 1/10W   | *****  |              |                     |               |
| R339     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  | *1-633-408-11 F BOARD                                |              |                     |               |
| R340     | 1-216-121-00 | METAL GLAZE | 1M 5% 1/10W   | *****  |              |                     |               |
| R341     | 1-216-031-00 | METAL GLAZE | 180 5% 1/10W  | *1-566-664-11 PIN, CONNECTOR 4P                      |              |                     |               |
| R342     | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W  | *****  |              |                     |               |
| R344     | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  | R351 1-216-033-00 METAL GLAZE 220 5% 1/10W <FUSE>    |              |                     |               |
| R346     | 1-216-202-00 | METAL GLAZE | 1.5K 5% 1/8W  | F1601 $\Delta$ 1-532-350-11 FUSE, TIME-LAG 4A/250V   |              |                     |               |
| R347     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W  | 1-533-230-11 HOLDER, FUSE; F1601                     |              |                     |               |
| R348     | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  | *****  |              |                     |               |
| R349     | 1-216-045-00 | METAL GLAZE | 680 5% 1/10W  | R355 1-216-061-00 METAL GLAZE 3.3K 5% 1/10W <SWITCH> |              |                     |               |
| R350     | 1-216-045-00 | METAL GLAZE | 680 5% 1/10W  | R356 1-216-069-00 METAL GLAZE 6.8K 5% 1/10W          |              |                     |               |
| R351     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  | R358 1-216-033-00 METAL GLAZE 220 5% 1/10W           |              |                     |               |
| R354     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  | R359 1-216-089-00 METAL GLAZE 47K 5% 1/10W           |              |                     |               |
| R355     | 1-216-061-00 | METAL GLAZE | 3.3K 5% 1/10W | R360 1-216-089-00 METAL GLAZE 47K 5% 1/10W           |              |                     |               |
| R356     | 1-216-069-00 | METAL GLAZE | 6.8K 5% 1/10W | *****  |              |                     |               |
| R358     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  | R361 1-216-057-00 METAL GLAZE 2.2K 5% 1/10W          |              |                     |               |
| R359     | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  | R362 1-216-065-00 METAL GLAZE 4.7K 5% 1/10W          |              |                     |               |
| R360     | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  | R363 1-216-055-00 METAL GLAZE 1.8K 5% 1/10W          |              |                     |               |
| R361     | 1-216-057-00 | METAL GLAZE | 2.2K 5% 1/10W | R364 1-216-059-00 METAL GLAZE 2.7K 5% 1/10W          |              |                     |               |
| R362     | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W | R365 1-216-047-00 METAL GLAZE 820 5% 1/10W           |              |                     |               |
| R363     | 1-216-055-00 | METAL GLAZE | 1.8K 5% 1/10W | *****  |              |                     |               |
| R364     | 1-216-059-00 | METAL GLAZE | 2.7K 5% 1/10W | *A-1632-005-A A BOARD, COMPLETE                      |              |                     |               |
| R365     | 1-216-047-00 | METAL GLAZE | 820 5% 1/10W  | *****  |              |                     |               |
| R366     | 1-216-059-00 | METAL GLAZE | 2.7K 5% 1/10W | *I-560-290-00 PLUG, CONNECTOR (2.5MM PITCH)          |              |                     |               |
| R367     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  | *I-564-881-11 PLUG, CONNECTOR 4P                     |              |                     |               |
| R370     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  | *I-564-886-11 PLUG, CONNECTOR 9P                     |              |                     |               |
| R372     | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W   | *I-565-393-11 CONNECTOR, BOARD TO BOARD              |              |                     |               |
| R376     | 1-249-429-11 | CARBON      | 10K 5% 1/4W   | *I-565-503-11 CONNECTOR, BOARD TO BOARD 12P          |              |                     |               |
| R377     | 1-216-043-00 | METAL GLAZE | 560 5% 1/10W  | *****  |              |                     |               |
| R378     | 1-216-097-00 | METAL GLAZE | 100K 5% 1/10W | C101 1-126-233-11 ELECT                              |              |                     |               |
| R379     | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  | C102 1-126-103-11 ELECT                              |              |                     |               |
| R380     | 1-216-071-00 | METAL GLAZE | 8.2K 5% 1/10W | C104 1-124-910-11 ELECT                              |              |                     |               |
| R381     | 1-216-093-00 | METAL GLAZE | 68K 5% 1/10W  | C106 1-126-233-11 ELECT                              |              |                     |               |
| R382     | 1-216-103-00 | METAL GLAZE | 180K 5% 1/10W | C108 1-136-165-00 FILM                               |              |                     |               |
| R383     | 1-216-115-00 | METAL GLAZE | 560K 5% 1/10W | C109 1-163-133-00 CERAMIC CHIP                       |              |                     |               |
| R384     | 1-216-029-00 | METAL GLAZE | 150 5% 1/10W  | C111 1-124-925-11 ELECT                              |              |                     |               |
| R385     | 1-216-085-00 | METAL GLAZE | 33K 5% 1/10W  | C115 1-124-925-11 ELECT                              |              |                     |               |
| R387     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W   | C127 1-124-122-11 ELECT                              |              |                     |               |
| R388     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W   | C128 1-124-910-11 ELECT                              |              |                     |               |
| R389     | 1-216-101-00 | METAL GLAZE | 150K 5% 1/10W | C129 1-124-910-11 ELECT                              |              |                     |               |
| R390     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  | C138 1-136-165-00 FILM                               |              |                     |               |
| R391     | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W   | C171 1-163-005-11 CERAMIC CHIP                       |              |                     |               |
| R392     | 1-216-019-00 | METAL GLAZE | 56 5% 1/10W   | C172 1-163-005-11 CERAMIC CHIP                       |              |                     |               |
| R393     | 1-216-019-00 | METAL GLAZE | 56 5% 1/10W   | C177 1-102-074-00 CERAMIC                            |              |                     |               |
| R394     | 1-216-019-00 | METAL GLAZE | 56 5% 1/10W   | C181 1-101-004-00 CERAMIC                            |              |                     |               |
| R395     | 1-216-214-00 | METAL GLAZE | 4.7K 5% 1/8W  | C172 1-163-005-11 CERAMIC CHIP 0.001MF               |              |                     |               |
| R396     | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W  | C181 1-101-004-00 CERAMIC 0.01MF                     |              |                     |               |
|          |              |             |               | 50V  |              |                     |               |

A C

The components identified by shading and mark are critical for safety.  
Replace only with part number specified.

| REF. NO.                                      | PART NO.      | DESCRIPTION            | REMARK  | REF. NO.      | PART NO.                      | DESCRIPTION  | REMARK               |                |  |
|---|---------------|------------------------|---------|---------------|-------------------------------|--------------|----------------------|----------------|--|
| <IC>  |               |                        |         |               |                               |              |                      |                |  |
| IC103   | 8-759-979-62  | IC PCR8574             |         | *A-1638-003-A | C BOARD, COMPLETE             | *****        |                      |                |  |
| <COIL>  |               |                        |         |               |                               |              |                      |                |  |
| L100  | 1-410-116-11  | INDUCTOR               | 0.56MH  | *1-508-765-00 | PIN, CONNECTOR (5MM PITCH) 3P |              |                      |                |  |
| L101  | 1-408-225-00  | INDUCTOR               | 3.3UH   | *1-568-878-61 | PIN, CONNECTOR 3P             |              |                      |                |  |
| L102  | 1-408-413-00  | INDUCTOR               | 22UH    | *1-568-881-51 | PIN, CONNECTOR 6P             |              |                      |                |  |
| L107  | 1-408-397-00  | INDUCTOR               | 1UH     | *4-379-160-01 | COVER (REAR LID), CV          |              |                      |                |  |
| <CONNECTOR>                                   |               |                        |         |               |                               |              |                      |                |  |
| C71   | *1-506-371-00 | PIN, CONNECTOR 2P      |         |               |                               |              |                      |                |  |
| <TRANSISTOR>                                  |               |                        |         |               |                               |              |                      |                |  |
| Q113  | 8-729-271-22  | TRANSISTOR 2SC2712-G   |         | <CAPACITOR>   |                               |              |                      |                |  |
| Q114  | 8-729-271-22  | TRANSISTOR 2SC2712-G   |         | C703          | 1-102-980-00                  | CERAMIC      | 270PF                | 5% 50V         |  |
| Q115  | 8-729-271-22  | TRANSISTOR 2SC2712-G   |         | C704          | 1-102-116-00                  | CERAMIC      | 680PF                | 10% 50V        |  |
| Q116  | 8-729-271-22  | TRANSISTOR 2SC2712-G   |         | C705          | 1-102-976-00                  | CERAMIC      | 180PF                | 5% 50V         |  |
| Q125  | 8-729-900-89  | TRANSISTOR DTC144ES    |         | C706          | 1-102-116-00                  | CERAMIC      | 680PF                | 10% 50V        |  |
| Q126  | 8-729-901-06  | TRANSISTOR DTA144EK    |         | C707          | 1-162-116-00                  | CERAMIC      | 680PF                | 10% 2KV        |  |
| Q181  | 8-729-119-78  | TRANSISTOR 2SC2785-HFE |         | C708          | 1-162-114-00                  | CERAMIC      | 0.0047MF             | 2KV            |  |
| <RESISTOR>                                    |               |                        |         |               |                               |              |                      |                |  |
| R101  | 1-216-025-00  | METAL GLAZE            | 100 5%  | 1/10W         | C709                          | 1-102-116-00 | CERAMIC              | 680PF 10% 50V  |  |
| R105  | 1-216-079-00  | METAL GLAZE            | 18K 5%  | 1/10W         | C710                          | 1-123-947-00 | ELECT                | 10MF 20% 250V  |  |
| R107  | 1-216-081-00  | METAL GLAZE            | 22K 5%  | 1/10W         | C711                          | 1-101-880-00 | CERAMIC              | 47PF 5% 50V    |  |
| R108  | 1-216-079-00  | METAL GLAZE            | 18K 5%  | 1/10W         | C712                          | 1-102-980-00 | CERAMIC              | 270PF 5% 50V   |  |
| R110  | 1-249-429-11  | CARBON                 | 10K 5%  | 1/4W          | C714                          | 1-124-360-00 | ELECT                | 1000MF 20% 16V |  |
| R111  | 1-216-061-00  | METAL GLAZE            | 3.3K 5% | 1/10W         | C716                          | 1-162-622-11 | CERAMIC              | 330PF 10% 400V |  |
| R116  | 1-216-023-00  | METAL GLAZE            | 82 5%   | 1/10W         | C717                          | 1-102-114-00 | CERAMIC              | 470PF 10% 50V  |  |
| R118  | 1-216-085-00  | METAL GLAZE            | 33K 5%  | 1/10W         | C718                          | 1-102-114-00 | CERAMIC              | 470PF 10% 50V  |  |
| R128  | 1-216-027-00  | METAL GLAZE            | 120 5%  | 1/10W         | C719                          | 1-102-114-00 | CERAMIC              | 470PF 10% 50V  |  |
| R129  | 1-216-057-00  | METAL GLAZE            | 2.2K 5% | 1/10W         | <DIODE>                       |              |                      |                |  |
| R130  | 1-216-057-00  | METAL GLAZE            | 2.2K 5% | 1/10W         | D701                          | 8-719-929-16 | DIODE HZS9.1NB3      |                |  |
| R157  | 1-216-049-00  | METAL GLAZE            | 1K 5%   | 1/10W         | D702                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R158  | 1-249-409-11  | CARBON                 | 220 5%  | 1/4W          | D703                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R159  | 1-249-409-11  | CARBON                 | 220 5%  | 1/4W          | D704                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R161  | 1-216-089-00  | METAL GLAZE            | 47K 5%  | 1/10W         | D705                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R162  | 1-216-095-00  | METAL GLAZE            | 82K 5%  | 1/10W         | D706                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R163  | 1-216-095-00  | METAL GLAZE            | 82K 5%  | 1/10W         | D707                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R164  | 1-216-075-00  | METAL GLAZE            | 12K 5%  | 1/10W         | D708                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R165  | 1-216-075-00  | METAL GLAZE            | 12K 5%  | 1/10W         | D709                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R167  | 1-216-059-00  | METAL GLAZE            | 2.7K 5% | 1/10W         | D710                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R168  | 1-216-089-00  | METAL GLAZE            | 47K 5%  | 1/10W         | D711                          | 8-719-300-33 | DIODE RU-3AM         |                |  |
| R169  | 1-216-059-00  | METAL GLAZE            | 2.7K 5% | 1/10W         | D713                          | 8-719-911-19 | DIODE ISS119         |                |  |
| R181  | 1-216-049-00  | METAL GLAZE            | 1K 5%   | 1/10W         | <JACK>                        |              |                      |                |  |
| R182  | 1-216-065-00  | METAL GLAZE            | 4.7K 5% | 1/10W         | J701                          | 1-526-990-11 | SOCKET, PICTURE TUBE |                |  |
| R193  | 1-216-073-00  | METAL GLAZE            | 10K 5%  | 1/10W         | <COIL>                        |              |                      |                |  |
| R194  | 1-216-017-00  | METAL GLAZE            | 47 5%   | 1/10W         | L704                          | 1-410-878-21 | INDUCTOR             | 33UH           |  |
| R195  | 1-216-017-00  | METAL GLAZE            | 47 5%   | 1/10W         |                               |              |                      |                |  |
| R196  | 1-216-113-00  | METAL GLAZE            | 470K 5% | 1/10W         |                               |              |                      |                |  |
| <TUNER>                                       |               |                        |         |               |                               |              |                      |                |  |
| TU101Δ 1-465-301-11 TUNER, ET. (UV-816 (PLL)) |               |                        |         |               |                               |              |                      |                |  |
| <IF BLOCK>                                    |               |                        |         |               |                               |              |                      |                |  |
| VIF101 1-466-154-21 IF BLOCK (IFG-389S)       |               |                        |         |               |                               |              |                      |                |  |
| *****   |               |                        |         |               |                               |              |                      |                |  |
| <TRANSISTOR>                                  |               |                        |         |               |                               |              |                      |                |  |
| Q702  | 8-729-119-78  | TRANSISTOR 2SC2785-HFE |         |               |                               |              |                      |                |  |
| Q703  | 8-729-906-70  | TRANSISTOR BF871       |         |               |                               |              |                      |                |  |
| Q704  | 8-729-200-17  | TRANSISTOR 2SA1091-0   |         |               |                               |              |                      |                |  |
| Q705  | 8-729-119-78  | TRANSISTOR 2SC2785-HFE |         |               |                               |              |                      |                |  |
| Q706  | 8-729-906-70  | TRANSISTOR BF871       |         |               |                               |              |                      |                |  |
| Q707  | 8-729-200-17  | TRANSISTOR 2SA1091-0   |         |               |                               |              |                      |                |  |
| Q708  | 8-729-119-78  | TRANSISTOR 2SC2785-HFE |         |               |                               |              |                      |                |  |
| Q709  | 8-729-906-70  | TRANSISTOR BF871       |         |               |                               |              |                      |                |  |
| Q710  | 8-729-200-17  | TRANSISTOR 2SA1091-0   |         |               |                               |              |                      |                |  |

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**C** **D**

| REF. NO.                         | PART NO.     | DESCRIPTION           | REMARK        | REF. NO. | PART NO.     | DESCRIPTION        | REMARK               |          |
|----------------------------------|--------------|-----------------------|---------------|----------|--------------|--------------------|----------------------|----------|
| <b>&lt;RESISTOR&gt;</b>          |              |                       |               |          |              |                    |                      |          |
| R704                             | 1-216-486-00 | METAL OXIDE           | 8.2K 5% 3W    | F        | C002         | 1-163-009-11       | CERAMIC CHIP 0.001MF | 10% 50V  |
| R705                             | 1-202-824-00 | SOLID                 | 3.3K 10% 1/2W |          | C003         | 1-123-875-11       | ELECT 10MF           | 20% 50V  |
| R706                             | 1-249-409-11 | CARBON                | 220 5% 1/4W   |          | C004         | 1-124-120-11       | ELECT 220MF          | 20% 16V  |
| R707                             | 1-247-822-11 | CARBON                | 430 5% 1/4W   |          | C005         | 1-124-791-11       | ELECT 1MF            | 20% 50V  |
| R708                             | 1-249-401-11 | CARBON                | 47 5% 1/4W    |          | C006         | 1-163-125-00       | CERAMIC CHIP 220PF   | 5% 50V   |
| R709                             | 1-202-844-00 | SOLID                 | 330K 10% 1/2W |          | C007         | 1-163-125-00       | CERAMIC CHIP 220PF   | 5% 50V   |
| R710                             | 1-215-469-00 | METAL                 | 100K 1% 1/6W  |          | C008         | 1-163-109-00       | CERAMIC CHIP 47PF    | 5% 50V   |
| R711                             | 1-249-426-11 | CARBON                | 5.6K 5% 1/4W  |          | C009         | 1-163-109-00       | CERAMIC CHIP 47PF    | 5% 50V   |
| R712                             | 1-249-417-11 | CARBON                | 1K 5% 1/4W    |          | C010         | 1-124-120-11       | ELECT 220MF          | 20% 16V  |
| R713                             | 1-215-474-00 | METAL                 | 160K 1% 1/6W  |          | C011         | 1-164-232-11       | CERAMIC CHIP 0.01MF  | 5% 50V   |
| R714                             | 1-216-486-00 | METAL OXIDE           | 8.2K 5% 3W    | F        | C012         | 1-123-875-11       | ELECT 10MF           | 20% 50V  |
| R715                             | 1-202-824-00 | SOLID                 | 3.3K 10% 1/2W |          | C013         | 1-106-220-00       | MYLAR 0.1MF          | 10% 100V |
| R716                             | 1-249-409-11 | CARBON                | 220 5% 1/4W   |          | C014         | 1-106-220-00       | MYLAR 0.1MF          | 10% 100V |
| R717                             | 1-249-415-11 | CARBON                | 680 5% 1/4W   |          | C015         | 1-124-902-00       | ELECT 0.47MF         | 20% 50V  |
| R718                             | 1-202-814-11 | SOLID                 | 33K 10% 1/2W  |          | C016         | 1-163-121-00       | CERAMIC CHIP 150PF   | 5% 50V   |
| R719                             | 1-249-401-11 | CARBON                | 47 5% 1/4W    |          | C017         | 1-106-220-00       | MYLAR 0.1MF          | 10% 100V |
| R720                             | 1-249-423-11 | CARBON                | 3.3K 5% 1/4W  |          | C018         | 1-163-127-00       | CERAMIC CHIP 270PF   | 5% 50V   |
| R721                             | 1-202-842-11 | SOLID                 | 220K 10% 1/2W |          | C019         | 1-106-383-00       | MYLAR 0.047MF        | 10% 100V |
| R722                             | 1-202-848-00 | SOLID                 | 680K 10% 1/2W |          | C020         | 1-124-917-11       | ELECT 33MF           | 20% 50V  |
| R723                             | 1-249-417-11 | CARBON                | 1K 5% 1/4W    |          | C021         | 1-163-117-00       | CERAMIC CHIP 100PF   | 5% 50V   |
| R724                             | 1-202-846-00 | SOLID                 | 470K 10% 1/2W |          | C022         | 1-164-232-11       | CERAMIC CHIP 0.01MF  | 50V      |
| R725                             | 1-202-838-00 | SOLID                 | 100K 10% 1/2W |          | C023         | 1-163-117-00       | CERAMIC CHIP 100PF   | 5% 50V   |
| R726                             | 1-202-824-00 | SOLID                 | 3.3K 10% 1/2W |          | C024         | 1-163-117-00       | CERAMIC CHIP 100PF   | 5% 50V   |
| R727                             | 1-249-409-11 | CARBON                | 220 5% 1/4W   |          | C025         | 1-163-117-00       | CERAMIC CHIP 100PF   | 5% 50V   |
| R728                             | 1-216-347-11 | METAL OXIDE           | 0.68 5% 1W    | F        | C027         | 1-124-910-11       | ELECT 47MF           | 20% 50V  |
| R729                             | 1-249-416-11 | CARBON                | 820 5% 1/4W   |          | C029         | 1-163-081-00       | CERAMIC CHIP 0.22MF  | 25V      |
| R730                             | 1-249-401-11 | CARBON                | 47 5% 1/4W    |          | C030         | 1-163-081-00       | CERAMIC CHIP 0.22MF  | 25V      |
| R731                             | 1-249-423-11 | CARBON                | 3.3K 5% 1/4W  |          | C031         | 1-163-081-00       | CERAMIC CHIP 0.22MF  | 25V      |
| R732                             | 1-249-415-11 | CARBON                | 680 5% 1/4W   |          | C032         | 1-163-081-00       | CERAMIC CHIP 0.22MF  | 25V      |
| R733                             | 1-249-415-11 | CARBON                | 680 5% 1/4W   |          | C251         | 1-124-791-11       | ELECT 1MF            | 20% 50V  |
| R734                             | 1-249-405-11 | CARBON                | 100 5% 1/4W   |          | C252         | 1-126-233-11       | ELECT 22MF           | 20% 50V  |
| R735                             | 1-215-493-00 | METAL                 | 1M 1% 1/6W    |          | C253         | 1-163-009-11       | CERAMIC CHIP 0.001MF | 10% 50V  |
| R736                             | 1-216-486-00 | METAL OXIDE           | 8.2K 5% 3W    | F        | C254         | 1-106-220-00       | MYLAR 0.1MF          | 10% 100V |
| R737                             | 1-215-483-00 | METAL                 | 390K 1% 1/6W  |          | C255         | 1-124-636-00       | ELECT 3300MF         | 20% 25V  |
| R739                             | 1-249-417-11 | CARBON                | 1K 5% 1/4W    |          | C261         | 1-124-791-11       | ELECT 1MF            | 20% 50V  |
| <b>&lt;VARIABLE RESISTOR&gt;</b> |              |                       |               |          |              |                    |                      |          |
| RV701                            | 1-230-641-11 | RES, ADJ, METAL GLAZE | 2.2M          |          | C262         | 1-126-233-11       | ELECT 22MF           | 20% 50V  |
| RV702A                           | 1-230-619-11 | RES, ADJ, METAL GLAZE | 110M          |          | C263         | 1-163-009-11       | CERAMIC CHIP 0.001MF | 10% 50V  |
| RV703                            | 1-237-749-11 | RES, ADJ, CARBON      | 2200          |          | C264         | 1-106-220-00       | MYLAR 0.1MF          | 10% 100V |
| RV704                            | 1-237-749-11 | RES, ADJ, CARBON      | 2200          |          | C265         | 1-124-564-11       | ELECT 4700MF         | 20% 25V  |
| *****                            |              |                       |               |          |              |                    |                      |          |
| *A-1642-010-A D BOARD, COMPLETE  |              |                       |               | C501     | 1-124-927-11 | ELECT 4.7MF        | 20% 50V              |          |
| *****                            |              |                       |               | C502     | 1-124-927-11 | ELECT 4.7MF        | 20% 50V              |          |
| *****                            |              |                       |               | C503     | 1-106-371-00 | MYLAR 0.015MF      | 10% 400V             |          |
| *****                            |              |                       |               | C504     | 1-163-121-00 | CERAMIC CHIP 150PF | 5% 50V               |          |
| *****                            |              |                       |               | C505     | 1-108-794-11 | MYLAR 0.0015MF     | 5% 50V               |          |
| *****                            |              |                       |               | C506     | 1-106-375-12 | MYLAR 0.022MF      | 10% 250V             |          |
| *****                            |              |                       |               | C507     | 1-130-783-00 | MYLAR 0.33MF       | 10% 100V             |          |
| *****                            |              |                       |               | C508     | 1-106-375-12 | MYLAR 0.022MF      | 10% 250V             |          |
| *****                            |              |                       |               | C509     | 1-106-220-00 | MYLAR 0.1MF        | 10% 100V             |          |
| *****                            |              |                       |               | C510     | 1-161-959-00 | CERAMIC 22PF       | 10% 500V             |          |
| *****                            |              |                       |               | C511     | 1-108-620-11 | MYLAR 0.0033MF     | 10% 100V             |          |
| *****                            |              |                       |               | C512     | 1-106-220-00 | MYLAR 0.1MF        | 10% 100V             |          |
| *****                            |              |                       |               | C513     | 1-163-125-00 | CERAMIC CHIP 220PF | 5% 50V               |          |
| *****                            |              |                       |               | C514     | 1-106-228-00 | MYLAR 0.22MF       | 10% 100V             |          |
| *****                            |              |                       |               | C515     | 1-124-791-11 | ELECT 1MF          | 20% 50V              |          |
| *****                            |              |                       |               | C516     | 1-108-614-11 | MYLAR 0.001MF      | 10% 100V             |          |
| *****                            |              |                       |               | C517     | 1-124-252-00 | ELECT 0.33MF       | 20% 50V              |          |
| *****                            |              |                       |               | C518     | 1-124-902-00 | ELECT 0.47MF       | 20% 50V              |          |
| *****                            |              |                       |               | C519     | 1-136-173-00 | FILM 0.47MF        | 5% 50V               |          |

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**D**

| REF. NO. | PART NO.     | DESCRIPTION  | REMARK   | REF. NO. | PART NO. | DESCRIPTION  | REMARK       |                     |             |      |      |
|----------|--------------|--------------|----------|----------|----------|--------------|--------------|---------------------|-------------|------|------|
| C520     | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10%      | 50V      | C822         | 1-163-005-11 | CERAMIC CHIP        | 470PF       | 10%  | 50V  |
| C521     | 1-106-220-00 | MYLAR        | 0.1MF    | 10%      | 100V     | C823         | 1-106-359-00 | MYLAR               | 0.0047MF    | 10%  | 400V |
| C522     | 1-124-122-11 | ELECT        | 100MF    | 20%      | 50V      | C824         | 1-102-212-00 | CERAMIC             | 820PF       | 10%  | 500V |
| C523     | 1-108-614-11 | MYLAR        | 0.001MF  | 10%      | 100V     | C825         | 1-106-375-12 | MYLAR               | 0.022MF     | 10%  | 250V |
| C524     | 1-108-798-11 | MYLAR        | 0.0033MF | 5%       | 50V      | C1601▲       | 1-136-518-11 | FILM                | 0.33MF      | 20%  | 300V |
| C525     | 1-163-117-00 | CERAMIC CHIP | 100PF    | 5%       | 50V      | C1602▲       | 1-136-519-11 | FILM                | 0.47MF      | 20%  | 300V |
| C526     | 1-163-101-00 | CERAMIC CHIP | 22PF     | 5%       | 50V      | C1603▲       | 1-164-322-51 | CERAMIC             | 0.0047MF    | 20%  | 400V |
| C527     | 1-106-220-00 | MYLAR        | 0.1MF    | 10%      | 100V     | C1604▲       | 1-164-322-51 | CERAMIC             | 0.0047MF    | 20%  | 400V |
| C531     | 1-124-190-00 | ELECT        | 680MF    | 10%      | 25V      | C1605▲       | 1-164-322-51 | CERAMIC             | 0.0047MF    | 20%  | 400V |
| C532     | 1-124-514-11 | ELECT        | 100MF    | 20%      | 50V      | C1606▲       | 1-164-322-51 | CERAMIC             | 0.0047MF    | 20%  | 400V |
| C533     | 1-106-216-00 | MYLAR        | 0.068MF  | 10%      | 100V     | C1607▲       | 1-161-964-61 | CERAMIC             | 0.0047MF    | 250V |      |
| C534     | 1-124-120-11 | ELECT        | 220MF    | 20%      | 16V      |              |              | <FILTER>            |             |      |      |
| C536     | 1-131-363-00 | TANTALUM     | 4.7MF    | 10%      | 16V      | CF001        | 1-577-364-11 | VIBRATOR, CERAMIC   |             |      |      |
| C537     | 1-124-791-11 | ELECT        | 1MF      | 20%      | 50V      | CF501        | 1-567-888-11 | OSCILLATOR, CERAMIC |             |      |      |
| C538     | 1-108-614-11 | MYLAR        | 0.001MF  | 10%      | 100V     |              |              | <DIODE>             |             |      |      |
| C539     | 1-163-129-00 | CERAMIC CHIP | 330PF    | 5%       | 50V      | D001         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C540     | 1-163-009-11 | CERAMIC CHIP | 0.001MF  | 10%      | 50V      | D002         | 8-719-929-03 | DIODE               | HZS6.8NB3   |      |      |
| C592     | 1-124-122-11 | ELECT        | 100MF    | 20%      | 50V      | D003         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C593     | 1-163-129-00 | CERAMIC CHIP | 330PF    | 5%       | 50V      | D004         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C601▲    | 1-161-964-61 | CERAMIC      | 0.0047MF | 250V     | D005     | 8-719-109-89 | DIODE        | RD5.6ES-B2          |             |      |      |
| C602▲    | 1-161-964-61 | CERAMIC      | 0.0047MF | 250V     | D006     | 8-719-929-71 | DIODE        | HZS33NB1            |             |      |      |
| C603     | 1-162-599-12 | CERAMIC      | 0.0047MF | 250V     | D007     | 8-719-911-19 | DIODE        | ISS119              |             |      |      |
| C604▲    | 1-125-318-11 | ELECT(BLOCK) | 220MF    | 20%      | 400V     | D009         | 8-719-109-89 | DIODE               | RD5.6ES-B2  |      |      |
| C605     | 1-124-510-11 | ELECT        | 220MF    | 20%      | 35V      | D010         | 8-719-120-78 | DIODE               | RD6.2ES-L3  |      |      |
| C606     | 1-163-137-00 | CERAMIC CHIP | 680PF    | 5%       | 50V      | D011         | 8-719-120-78 | DIODE               | RD6.2ES-L3  |      |      |
| C607     | 1-130-834-00 | MYLAR        | 1MF      | 10%      | 63V      | D271         | 8-719-110-36 | DIODE               | RD13ES-B2   |      |      |
| C608     | 1-124-927-11 | ELECT        | 4.7MF    | 20%      | 50V      | D272         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C611     | 1-124-910-11 | ELECT        | 47WF     | 20%      | 50V      | D501         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C612     | 1-108-614-11 | MYLAR        | 0.001MF  | 10%      | 100V     | D504         | 8-719-911-55 | DIODE               | U05G        |      |      |
| C613     | 1-136-539-11 | FILM         | 0.0022MF | 3%       | 2KV      | D506         | 8-719-800-76 | DIODE               | ISS226      |      |      |
| C614     | 1-102-030-00 | CERAMIC      | 330PF    | 10%      | 500V     | D508         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C615     | 1-124-557-11 | ELECT        | 1000MF   | 20%      | 25V      | D511         | 8-719-911-55 | DIODE               | U05G        |      |      |
| C616     | 1-102-030-00 | CERAMIC      | 330PF    | 10%      | 500V     | D512         | 8-719-911-55 | DIODE               | U05G        |      |      |
| C617     | 1-124-122-11 | ELECT        | 100MF    | 20%      | 50V      | D513         | 8-719-928-85 | DIODE               | HZS4.7NB2   |      |      |
| C618     | 1-162-115-00 | CERAMIC      | 330PF    | 10%      | 2KV      | D601▲        | 8-719-946-90 | DIODE               | KBU4JL-6088 |      |      |
| C619     | 1-124-556-11 | ELECT        | 2200MF   | 20%      | 16V      | D602         | 8-719-300-33 | DIODE               | RU-3AM      |      |      |
| C620     | 1-136-173-00 | FILM         | 0.47MF   | 5%       | 50V      | D603         | 8-719-911-55 | DIODE               | U05G        |      |      |
| C621     | 1-124-347-00 | ELECT        | 100MF    | 20%      | 160V     | D604         | 8-719-911-55 | DIODE               | U05G        |      |      |
| C622     | 1-124-556-11 | ELECT        | 2200MF   | 20%      | 16V      | D513         | 8-719-928-85 | DIODE               | HZS4.7NB2   |      |      |
| C623     | 1-124-910-11 | ELECT        | 47MF     | 20%      | 50V      | D601▲        | 8-719-946-90 | DIODE               | KBU4JL-6088 |      |      |
| C624     | 1-124-122-11 | ELECT        | 100MF    | 20%      | 50V      | D606         | 8-719-300-33 | DIODE               | RU-3AM      |      |      |
| C625     | 1-124-360-00 | ELECT        | 1000MF   | 20%      | 16V      | D603         | 8-719-911-55 | DIODE               | U05G        |      |      |
| C626     | 1-123-875-11 | ELECT        | 10MF     | 20%      | 50V      | D604         | 8-719-911-55 | DIODE               | U05G        |      |      |
| C627     | 1-163-009-11 | CERAMIC CHIP | 0.001MF  | 10%      | 50V      | D605         | 8-719-911-55 | DIODE               | U05G        |      |      |
| C631     | 1-124-927-11 | ELECT        | 4.7MF    | 20%      | 50V      | D606         | 8-719-300-33 | DIODE               | RU-3AM      |      |      |
| C632     | 1-163-009-11 | CERAMIC CHIP | 0.001MF  | 10%      | 50V      | D607         | 8-719-300-33 | DIODE               | RU-3AM      |      |      |
| C633     | 1-163-117-00 | CERAMIC CHIP | 100PF    | 5%       | 50V      | D608         | 8-719-300-33 | DIODE               | RU-3AM      |      |      |
| C801     | 1-126-105-11 | ELECT        | 1000MF   | 20%      | 35V      | D609         | 8-719-929-71 | DIODE               | HZS33NB1    |      |      |
| C802     | 1-102-030-00 | CERAMIC      | 330PF    | 10%      | 500V     | D610         | 8-719-300-59 | DIODE               | CTU-12S     |      |      |
| C804     | 1-123-948-00 | ELECT        | 22MF     | 20%      | 250V     | D611         | 8-719-900-26 | DIODE               | ERD29-08J   |      |      |
| C805     | 1-162-114-00 | CERAMIC      | 0.0047MF |          | 2KV      | D612         | 8-719-300-59 | DIODE               | CTU-12S     |      |      |
| C806     | 1-106-220-00 | MYLAR        | 0.1MF    | 10%      | 100V     | D613         | 8-719-979-85 | DIODE               | EGP20G      |      |      |
| C807     | 1-106-395-00 | MYLAR        | 0.15MF   | 10%      | 200V     | D614         | 8-719-979-85 | DIODE               | EGP20G      |      |      |
| C810     | 1-123-024-21 | ELECT        | 33MF     |          | 160V     | D616         | 8-719-120-78 | DIODE               | RD6.2ES-L3  |      |      |
| C811     | 1-136-111-00 | FILM         | 1MF      | 5%       | 200V     | D617         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C812     | 1-124-634-11 | ELECT        | 1MF      | 20%      | 250V     | D618         | 8-719-109-89 | DIODE               | RD5.6ES-B2  |      |      |
| C813     | 1-102-212-00 | CERAMIC      | 820PF    | 10%      | 500V     | D619         | 8-719-929-71 | DIODE               | HZS33NB1    |      |      |
| C814▲    | 1-161-731-11 | CERAMIC      | 0.001MF  | 10%      | 2KV      | D620         | 8-719-800-76 | DIODE               | ISS226      |      |      |
| C815     | 1-136-111-00 | FILM         | 1MF      | 5%       | 200V     | D621         | 8-719-929-71 | DIODE               | HZS33NB1    |      |      |
| C817     | 1-136-549-11 | FILM         | 0.0106MF | 3%       | 1.4KV    | D622         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C818     | 1-136-759-11 | FILM         | 0.039MF  | 10%      | 630V     | D623         | 8-719-911-19 | DIODE               | ISS119      |      |      |
| C819▲    | 1-161-731-11 | CERAMIC      | 0.001MF  | 10%      | 2KV      | D630         | 8-719-110-39 | DIODE               | RD15ES-B1   |      |      |
| C820     | 1-106-218-00 | MYLAR        | 0.0082MF | 10%      | 400V     | D801         | 8-719-300-33 | DIODE               | RU-3AM      |      |      |
| C821▲    | 1-162-116-51 | CERAMIC      | 680PF    | 10%      | 2KV      | D802         | 8-719-300-33 | DIODE               | RU-3AM      |      |      |

D

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

| REF. NO.  | PART NO.              | DESCRIPTION                         | REMARK | REF. NO. | PART NO.     | DESCRIPTION               | REMARK |
|---|-----------------------|-------------------------------------|--------|----------|--------------|---------------------------|--------|
| D803  | 8-719-300-65          | DIODE ES1F                          |        | Q006     | 8-729-901-01 | TRANSISTOR DTC144EK       |        |
| D804  | 8-719-911-55          | DIODE U05G                          |        | Q007     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| D805  | 8-719-911-55          | DIODE U05G                          |        | Q008     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| D806  | 8-719-945-80          | DIODE ERC06-15S                     |        | Q009     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| D808  | 8-719-928-08          | DIODE ERD28-08S                     |        | Q251     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| <IC>  |                       |                                     |        | Q261     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| IC001   | 8-759-501-66          | IC SDA2083-B012                     |        | Q271     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| IC002   | 8-752-332-82          | IC CXD1050A-09P                     |        | Q502     | 8-729-216-22 | TRANSISTOR 2SA1162-G      |        |
| IC003   | 8-759-945-58          | IC RC4558P                          |        | Q505     | 8-729-140-96 | TRANSISTOR 2SD774-34      |        |
| IC005   | 8-759-748-56          | IC SDA2546                          |        | Q506     | 8-729-140-97 | TRANSISTOR 2SB734-34      |        |
| IC251   | 8-759-988-94          | IC TDA2050                          |        | Q507     | 8-729-216-22 | TRANSISTOR 2SA1162-G      |        |
| 4-201-023-01 SPACER, INSULATING; IC251            |                       |                                     |        | Q598     | 8-729-216-22 | TRANSISTOR 2SA1162-G      |        |
| 4-812-134-00 RIVET NYLON, 3.5; IC251              |                       |                                     |        | Q601     | 8-729-111-67 | TRANSISTOR 2SB1094-L      |        |
| IC261   | 8-759-988-94          | IC TDA2050                          |        | Q602     | 8-729-209-02 | TRANSISTOR 2SD1548-LB     |        |
| 4-201-023-01 SPACER, INSULATING; IC261            |                       |                                     |        | Q603     | 8-729-111-67 | TRANSISTOR 2SB1094-L      |        |
| 4-812-134-00 RIVET NYLON, 3.5; IC261              |                       |                                     |        | Q604     | 8-729-216-22 | TRANSISTOR 2SA1162-G      |        |
| IC501   | 8-759-970-73          | IC TEA2028B                         |        | Q605     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| IC502   | 8-759-944-57          | IC TDA8170                          |        | Q606     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| IC601   | 8-759-988-95          | IC TEA2260                          |        | Q607     | 8-729-920-92 | TRANSISTOR 2SD2096-EF     |        |
| IC604   | 8-759-144-84          | IC UPC24M05HF                       |        | Q608     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| IC608   | 8-759-037-26          | IC TYA7812CT                        |        | Q609     | 8-729-320-62 | TRANSISTOR 2SD789-34      |        |
| <COIL>  |                       |                                     |        | Q801     | 8-729-271-22 | TRANSISTOR 2SC2712-G      |        |
| L001  | 1-408-414-00          | INDUCTOR 27UH                       |        | Q804     | 8-729-304-50 | TRANSISTOR 2SD1941-06     |        |
| L501  | 1-408-225-00          | INDUCTOR 3.3UH                      |        | Q805     | 8-729-119-80 | TRANSISTOR 2SC2688-LK     |        |
| <RESISTOR>  |                       |                                     |        |          |              |                           |        |
| L601  | *1-420-872-00         | COIL, AIR CORE                      |        | R001     | 1-216-041-00 | METAL GLAZE 470 5% 1/10W  |        |
| L602  | 1-410-396-41          | FERRITE BEAD INDUCTOR               |        | R002     | 1-216-041-00 | METAL GLAZE 470 5% 1/10W  |        |
| L603  | 1-410-396-41          | FERRITE BEAD INDUCTOR               |        | R003     | 1-249-417-11 | CARBON 1K 5% 1/4W         |        |
| L604  | 1-410-671-31          | INDUCTOR 47UH                       |        | R004     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W   |        |
| L605  | 1-459-585-11          | COIL (WITH CORD) (DRUM TYPE)        |        | R005     | 1-249-417-11 | CARBON 1K 5% 1/4W         |        |
| L606  | 1-421-013-00          | COIL (HORIZONTAL CHOKER) 25UH       |        | R006     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |        |
| L607  | 1-410-671-31          | INDUCTOR 47UH                       |        | R007     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W |        |
| L803  | 1-459-104-00          | COIL, DUST CORE                     |        | R008     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |        |
| L804  | 1-408-239-00          | INDUCTOR 4.7MMH                     |        | R009     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |        |
| L805  | $\Delta$ 1-459-652-12 | HLC                                 |        | R010     | 1-216-041-00 | METAL GLAZE 470 5% 1/10W  |        |
| L806  | 1-459-115-00          | COIL, DCC-H                         |        | R011     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W |        |
| L809  | *1-420-872-00         | COIL, AIR CORE                      |        | R013     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |        |
| L810  | $\Delta$ 1-459-390-11 | COIL (WITH CORD)                    |        | R014     | 1-216-071-00 | METAL GLAZE 8.2K 5% 1/10W |        |
| <TRANSFORMER>                                     |                       |                                     |        | R015     | 1-216-061-00 | METAL GLAZE 3.3K 5% 1/10W |        |
| LF1601 $\Delta$ 1-421-866-12 LFT                  |                       |                                     |        | R016     | 1-216-085-00 | METAL GLAZE 33K 5% 1/10W  |        |
| LF1602 $\Delta$ 1-421-776-11 LFT                  |                       |                                     |        |          |              |                           |        |
| LF1603 $\Delta$ 1-421-592-21 TRANSFORMER, FERRITE |                       |                                     |        | R017     | 1-216-748-11 | METAL GLAZE 39K 5% 1/10W  |        |
| T601  | $\Delta$ 1-450-038-11 | S.R.T                               |        | R018     | 1-216-095-00 | METAL GLAZE 82K 5% 1/10W  |        |
| T602  | $\Delta$ 1-424-277-11 | TRANSFORMER, TRIGGER PULSE          |        | R019     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W   |        |
| T801  | $\Delta$ 1-437-090-21 | HDT                                 |        | R020     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W   |        |
| T802  | $\Delta$ 1-439-416-11 | TRANSFORMER ASSY, FLYBACK (UX-1600) |        | R021     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W |        |
| <IC LINK>   |                       |                                     |        | R022     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W |        |
| PS601   | $\Delta$ 1-532-984-91 | LINK, IC (ICP-N50) 2A               |        | R023     | 1-216-035-00 | METAL GLAZE 270 5% 1/10W  |        |
| PS602   | $\Delta$ 1-532-984-91 | LINK, IC (ICP-N50) 2A               |        | R024     | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W   |        |
| PS603   | $\Delta$ 1-532-679-91 | LINK, IC (ICP-N15) 0.6A             |        | R025     | 1-216-025-00 | METAL GLAZE 100 5% 1/10W  |        |
| <TRANSISTOR>                                      |                       |                                     |        | R026     | 1-249-417-11 | CARBON 1K 5% 1/4W         |        |
| Q001  | 8-729-901-01          | TRANSISTOR DTC144EK                 |        | R027     | 1-216-025-00 | METAL GLAZE 100 5% 1/10W  |        |
| Q002  | 8-729-901-06          | TRANSISTOR DTA144EK                 |        | R028     | 1-216-025-00 | METAL GLAZE 100 5% 1/10W  |        |
| Q003  | 8-729-216-22          | TRANSISTOR 2SA1162-G                |        | R029     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |        |
| Q004  | 8-729-216-22          | TRANSISTOR 2SA1162-G                |        | R030     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |        |
| Q005  | 8-729-901-01          | TRANSISTOR DTC144EK                 |        | R031     | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W  |        |
| <TRANSISTOR>                                      |                       |                                     |        | R032     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |        |
| Q001  | 8-729-901-01          | TRANSISTOR DTC144EK                 |        | R033     | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W  |        |
| Q002  | 8-729-901-06          | TRANSISTOR DTA144EK                 |        | R034     | 1-216-077-00 | METAL GLAZE 15K 5% 1/10W  |        |
| Q003  | 8-729-216-22          | TRANSISTOR 2SA1162-G                |        | R035     | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W  |        |
| Q004  | 8-729-216-22          | TRANSISTOR 2SA1162-G                |        | R036     | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W  |        |
| Q005  | 8-729-901-01          | TRANSISTOR DTC144EK                 |        | R037     | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W |        |
|   |                       |                                     |        | R038     | 1-216-059-00 | METAL GLAZE 2.7K 5% 1/10W |        |

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

**D**

| REF. NO. | PART NO.     | DESCRIPTION | REMARK         | REF. NO. | PART NO.     | DESCRIPTION | REMARK        |
|----------|--------------|-------------|----------------|----------|--------------|-------------|---------------|
| R039     | 1-216-081-00 | METAL GLAZE | 22K 5% 1/10W   | R503     | 1-216-035-00 | METAL GLAZE | 270 5% 1/10W  |
| R040     | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W   | R504     | 1-249-420-11 | CARBON      | 1.8K 5% 1/4W  |
| R041     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R505     | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W  |
| R042     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R506     | 1-216-071-00 | METAL GLAZE | 8.2K 5% 1/10W |
| R043     | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W   | R509     | 1-216-063-00 | METAL GLAZE | 3.9K 5% 1/10W |
| R044     | 1-216-097-00 | METAL GLAZE | 100K 5% 1/10W  | R510     | 1-216-067-00 | METAL GLAZE | 5.6K 5% 1/10W |
| R045     | 1-216-061-00 | METAL GLAZE | 3.3K 5% 1/10W  | R514     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  |
| R046     | 1-216-085-00 | METAL GLAZE | 33K 5% 1/10W   | R515     | 1-216-061-00 | METAL GLAZE | 3.3K 5% 1/10W |
| R047     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R517     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W  |
| R048     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R518     | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| R049     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R519     | 1-216-081-00 | METAL GLAZE | 22K 5% 1/10W  |
| R050     | 1-216-067-00 | METAL GLAZE | 5.6K 5% 1/10W  | R520     | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W  |
| R051     | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W   | R521     | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R052     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R522     | 1-249-441-11 | CARBON      | 100K 5% 1/4W  |
| R053     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R523     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W   |
| R054     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R524     | 1-216-057-00 | METAL GLAZE | 2.2K 5% 1/10W |
| R055     | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W   | R525     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W   |
| R056     | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W   | R526     | 1-249-409-11 | CARBON      | 220 5% 1/4W F |
| R057     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W   | R527     | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W  |
| R058     | 1-216-063-00 | METAL GLAZE | 3.9K 5% 1/10W  | R528     | 1-216-031-00 | METAL GLAZE | 180 5% 1/10W  |
| R059     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R529     | 1-216-069-00 | METAL GLAZE | 6.8K 5% 1/10W |
| R060     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R530     | 1-249-448-11 | CARBON      | 1.2 5% 1/4W F |
| R061     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R533     | 1-216-031-00 | METAL GLAZE | 180 5% 1/10W  |
| R062     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R534     | 1-216-119-00 | METAL GLAZE | 820K 5% 1/10W |
| R063     | 1-249-429-11 | CARBON      | 10K 5% 1/4W    | R535     | 1-249-753-15 | CARBON      | 4.7M 5% 1/4W  |
| R064     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R536     | 1-216-129-00 | METAL GLAZE | 2.2M 5% 1/10W |
| R065     | 1-249-429-11 | CARBON      | 10K 5% 1/4W    | R537     | 1-216-083-00 | METAL GLAZE | 27K 5% 1/10W  |
| R066     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R538     | 1-216-101-00 | METAL GLAZE | 150K 5% 1/10W |
| R067     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R539     | 1-216-101-00 | METAL GLAZE | 150K 5% 1/10W |
| R068     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R540     | 1-216-013-00 | METAL GLAZE | 33 5% 1/10W   |
| R069     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R541     | 1-216-091-00 | METAL GLAZE | 56K 5% 1/10W  |
| R070     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R542     | 1-216-308-00 | METAL GLAZE | 4.7 5% 1/10W  |
| R071     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R543     | 1-249-451-11 | CARBON      | 2.2 5% 1/4W   |
| R072     | 1-249-417-11 | CARBON      | 1K 5% 1/4W     | R544     | 1-247-745-11 | CARBON      | 330 5% 1/2W   |
| R073     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R545     | 1-216-748-11 | METAL GLAZE | 39K 5% 1/10W  |
| R074     | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W  | R546     | 1-216-083-00 | METAL GLAZE | 27K 5% 1/10W  |
| R075     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W   | R547     | 1-216-067-00 | METAL GLAZE | 5.6K 5% 1/10W |
| R076     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R548     | 1-216-350-11 | METAL OXIDE | 1.2 5% 1W F   |
| R077     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R549     | 1-215-890-11 | METAL OXIDE | 470 5% 2W F   |
| R078     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W    | R550     | 1-216-095-00 | METAL GLAZE | 82K 5% 1/10W  |
| R251     | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W  | R551     | 1-216-129-00 | METAL GLAZE | 2.2M 5% 1/10W |
| R252     | 1-216-039-00 | METAL GLAZE | 390 5% 1/10W   | R552     | 1-216-433-00 | METAL OXIDE | 1.2K 5% 1W    |
| R253     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R553     | 1-216-869-11 | METAL OXIDE | 1K 5% 1W      |
| R254     | 1-216-357-00 | METAL OXIDE | 4.7 5% 1W F    | R554     | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W  |
| R255     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R555     | 1-216-129-00 | METAL GLAZE | 2.2M 5% 1/10W |
| R256     | 1-216-115-00 | METAL GLAZE | 560K 5% 1/10W  | R556     | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R257     | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W   | R557     | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W |
| R258     | 1-215-869-11 | METAL OXIDE | 1K 5% 1W F     | R558     | 1-216-113-00 | METAL GLAZE | 470K 5% 1/10W |
| R259     | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W  | R559     | 1-216-069-00 | METAL GLAZE | 6.8K 5% 1/10W |
| R261     | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W  | R560     | 1-216-037-00 | METAL GLAZE | 330 5% 1/10W  |
| R262     | 1-216-039-00 | METAL GLAZE | 390 5% 1/10W   | R591     | 1-216-047-00 | METAL GLAZE | 820 5% 1/10W  |
| R263     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R592     | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W   |
| R264     | 1-216-357-00 | METAL OXIDE | 4.7 5% 1W F    | R593     | 1-216-053-00 | METAL GLAZE | 1.5K 5% 1/10W |
| R265     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R594     | 1-216-071-00 | METAL GLAZE | 8.2K 5% 1/10W |
| R266     | 1-216-115-00 | METAL GLAZE | 560K 5% 1/10W  | R597     | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W  |
| R267     | 1-216-077-00 | METAL GLAZE | 15K 5% 1/10W F | R598     | 1-215-900-11 | METAL OXIDE | 22K 5% 2W F   |
| R268     | 1-215-869-11 | METAL OXIDE | 1K 5% 1W F     | R601     | 1-216-353-00 | METAL OXIDE | 2.2 5% 1W F   |
| R269     | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W  | R603     | 1-215-906-11 | METAL OXIDE | 15 5% 3W F    |
| R271     | 1-216-045-00 | METAL GLAZE | 680 5% 1/10W   | R604     | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R272     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R605     | 1-216-081-00 | METAL GLAZE | 22K 5% 1/10W  |
| R273     | 1-216-073-00 | METAL GLAZE | 10K 5% 1/10W   | R606     | 1-216-051-00 | METAL GLAZE | 1.2K 5% 1/10W |
| R500     | 1-216-115-00 | METAL GLAZE | 560K 5% 1/10W  | R607     | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W |
| R501     | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W   | R608 A   | 1-216-488-51 | METAL OXIDE | 18K 5% 3W F   |
| R502     | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W   |          |              |             |               |

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

D H1 H2 J1

| REF. NO.                                  | PART NO.                   | DESCRIPTION        | REMARK | REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|----------------------------|--------------------|--------|----------|----------|-------------|--------|
| R609                                      | 1-216-007-00               | METAL GLAZE        | 18     | 5%       | 1/10W    |             |        |
| R610                                      | 1-244-941-00               | CARBON             | 680K   | 5%       | 1/2W     |             |        |
| R611                                      | 1-216-015-00               | METAL GLAZE        | 39     | 5%       | 1/10W    |             |        |
| R612                                      | 1-216-049-00               | METAL GLAZE        | 1K     | 5%       | 1/10W    |             |        |
| R613                                      | 1-216-097-00               | METAL GLAZE        | 100K   | 5%       | 1/10W    |             |        |
| R614                                      | 1-205-758-11               | WIREWOUND          | 100    | 10%      | 10W F    |             |        |
| R616                                      | 1-216-099-00               | METAL GLAZE        | 120K   | 5%       | 1/10W    |             |        |
| R617                                      | 1-216-037-00               | METAL GLAZE        | 330    | 5%       | 1/10W    |             |        |
| R618                                      | 1-216-431-11               | METAL OXIDE        | 560    | 5%       | 1W F     |             |        |
| R619                                      | 1-216-073-00               | METAL GLAZE        | 10K    | 5%       | 1/10W    |             |        |
| R620                                      | 1-216-081-00               | METAL GLAZE        | 22K    | 5%       | 1/10W    |             |        |
| R621                                      | 1-216-077-00               | METAL GLAZE        | 15K    | 5%       | 1/10W    |             |        |
| R622                                      | 1-216-073-00               | METAL GLAZE        | 10K    | 5%       | 1/10W    |             |        |
| R623                                      | 1-216-081-00               | METAL GLAZE        | 22K    | 5%       | 1/10W    |             |        |
| R624                                      | 1-216-067-00               | METAL GLAZE        | 5.6K   | 5%       | 1/10W    |             |        |
| R625                                      | 1-215-865-11               | METAL OXIDE        | 220    | 5%       | 1W F     |             |        |
| R626                                      | 1-216-037-00               | METAL GLAZE        | 330    | 5%       | 1/10W    |             |        |
| R628                                      | 1-216-001-00               | METAL GLAZE        | 10     | 5%       | 1/10W    |             |        |
| R629                                      | 1-216-037-00               | METAL GLAZE        | 330    | 5%       | 1/10W    |             |        |
| R633                                      | 1-216-049-00               | METAL GLAZE        | 1K     | 5%       | 1/10W    |             |        |
| R634                                      | 1-216-430-11               | METAL OXIDE        | 390    | 5%       | 1W F     |             |        |
| R635                                      | 1-216-073-00               | METAL GLAZE        | 10K    | 5%       | 1/10W    |             |        |
| R636                                      | 1-216-073-00               | METAL GLAZE        | 10K    | 5%       | 1/10W    |             |        |
| R643                                      | 1-217-190-21               | WIREWOUND          | 0.15   | 5%       | 2W F     |             |        |
| R651                                      | 1-216-025-00               | METAL GLAZE        | 100    | 5%       | 1/10W    |             |        |
| R653                                      | 1-205-758-11               | WIREWOUND          | 100    | 10%      | 10W F    |             |        |
| R802                                      | 1-249-443-11               | CARBON             | 0.47   | 5%       | 1/4W F   |             |        |
| R805                                      | 1-249-448-11               | CARBON             | 1.2    | 5%       | 1/4W F   |             |        |
| R806                                      | 1-216-093-00               | METAL GLAZE        | 68K    | 5%       | 1/10W    |             |        |
| R807                                      | 1-215-869-11               | METAL OXIDE        | 1K     | 5%       | 1W F     |             |        |
| R809                                      | 1-202-821-11               | SOLID              | 1.8K   | 10%      | 1/2W     |             |        |
| R810                                      | 1-202-818-00               | SOLID              | 1K     | 10%      | 1/2W     |             |        |
| R811                                      | 1-215-863-11               | METAL OXIDE        | 100    | 5%       | 1W       |             |        |
| R812                                      | 1-247-285-00               | CARBON             | 75K    | 5%       | 1/2W     |             |        |
| R815                                      | 1-215-884-11               | METAL OXIDE        | 47     | 5%       | 2W F     |             |        |
| R816                                      | 1-215-868-00               | METAL OXIDE        | 680    | 5%       | 1W F     |             |        |
| R817                                      | 1-216-049-00               | METAL GLAZE        | 1K     | 5%       | 1/10W    |             |        |
| R820                                      | 1-249-403-11               | CARBON             | 68     | 5%       | 1/4W     |             |        |
| R821                                      | 1-247-725-11               | CARBON             | 10K    | 5%       | 1/4W F   |             |        |
| R822 $\Delta$                             | 1-217-778-61               | FUSIBLE            | 1K     | 5%       | 1W F     |             |        |
| R825                                      | 1-216-349-00               | METAL OXIDE        | 1      | 5%       | 1W F     |             |        |
| R826                                      | 1-216-097-00               | METAL GLAZE        | 100K   | 5%       | 1/10W    |             |        |
| R827                                      | 1-216-073-00               | METAL GLAZE        | 10K    | 5%       | 1/10W    |             |        |
| R828                                      | 1-216-059-00               | METAL GLAZE        | 2.7K   | 5%       | 1/10W    |             |        |
| R829                                      | 1-216-051-00               | METAL GLAZE        | 1.2K   | 5%       | 1/10W    |             |        |
| R831                                      | 1-249-451-11               | CARBON             | 2.2    | 5%       | 1/4W     |             |        |
| R1601A $\Delta$                           | 1-246-513-75               | CARBON             | 47K    | 5%       | 1/4W     |             |        |
| R1602A $\Delta$                           | 1-244-945-91               | CARBON             | 1M     | 5%       | 1/2W     |             |        |
| R1603A $\Delta$                           | 1-217-328-11               | WIREWOUND          | 2.7    | 10%      | 7W F     |             |        |
| R1604A $\Delta$                           | 1-246-513-75               | CARBON             | 47K    | 5%       | 1/4W     |             |        |
| R1605A $\Delta$                           | 1-218-265-91               | METAL GLAZE        | 8.2M   | 5%       | 1W       |             |        |
| R5501                                     | 1-216-073-00               | METAL GLAZE        | 10K    | 5%       | 1/10W    |             |        |
| R5503                                     | 1-216-308-00               | METAL GLAZE        | 4.7    | 5%       | 1/10W    |             |        |
| R5504                                     | 1-216-121-00               | METAL GLAZE        | 1M     | 5%       | 1/10W    |             |        |
| R5505                                     | 1-216-001-00               | METAL GLAZE        | 10     | 5%       | 1/10W    |             |        |
| <VARIABLE RESISTOR>                       |                            |                    |        |          |          |             |        |
| RV501                                     | 1-238-013-11               | RES, ADJ, CARBON   | 2.2K   |          |          |             |        |
| RV502                                     | 1-238-016-11               | RES, ADJ, CARBON   | 10K    |          |          |             |        |
| RV601                                     | 1-238-011-11               | RES, ADJ, CARBON   | 470    |          |          |             |        |
| <SPARK GAP>                               |                            |                    |        |          |          |             |        |
| SG801                                     | 1-519-422-11               | GAP, SPARK         |        |          |          |             |        |
| <THERMISTOR>                              |                            |                    |        |          |          |             |        |
| THP601A 1-808-059-31 THERMISTOR, POSITIVE |                            |                    |        |          |          |             |        |
| *****                                     |                            |                    |        |          |          |             |        |
| <RESISTOR>                                |                            |                    |        |          |          |             |        |
| R1651                                     | 1-249-413-11               | CARBON             | 470    | 5%       | 1/4W     |             |        |
| R1652                                     | 1-249-413-11               | CARBON             | 470    | 5%       | 1/4W     |             |        |
| <SWITCH>                                  |                            |                    |        |          |          |             |        |
| S1651                                     | 1-571-532-21               | SWITCH, TACTIL     |        |          |          |             |        |
| S1652                                     | 1-571-532-21               | SWITCH, TACTIL     |        |          |          |             |        |
| S1653                                     | 1-571-532-21               | SWITCH, TACTIL     |        |          |          |             |        |
| *****                                     |                            |                    |        |          |          |             |        |
| <SWITCH>                                  |                            |                    |        |          |          |             |        |
| *1-633-410-11                             | H2 BOARD                   |                    |        |          |          |             |        |
| *****                                     |                            |                    |        |          |          |             |        |
| <DIODE>                                   |                            |                    |        |          |          |             |        |
| D1651                                     | 8-719-948-31               | DIODE LD-201VR     |        |          |          |             |        |
| D1652                                     | 8-719-948-31               | DIODE LD-201VR     |        |          |          |             |        |
| D1652                                     | *4-387-825-02              | HOLDER, LED; D1651 |        |          |          |             |        |
| D1654                                     | 8-719-948-31               | DIODE LD-201VR     |        |          |          |             |        |
| D1654                                     | *4-387-825-02              | HOLDER, LED; D1652 |        |          |          |             |        |
| D1654                                     | 8-719-948-31               | DIODE LD-201VR     |        |          |          |             |        |
| <DIODE>                                   |                            |                    |        |          |          |             |        |
| *4-387-825-02                             | HOLDER, LED; D1654         |                    |        |          |          |             |        |
| <IC>                                      |                            |                    |        |          |          |             |        |
| IC1651                                    | 8-741-138-70               | IC BX-1387         |        |          |          |             |        |
| <RESISTOR>                                |                            |                    |        |          |          |             |        |
| R1662                                     | 1-249-413-11               | CARBON             | 470    | 5%       | 1/4W     |             |        |
| *****                                     |                            |                    |        |          |          |             |        |
| <J1 BOARD, COMPLETE>                      |                            |                    |        |          |          |             |        |
| *A-1651-014-A                             | J1 BOARD, COMPLETE         |                    |        |          |          |             |        |
| *****                                     |                            |                    |        |          |          |             |        |
| 1-561-534-41 SOCKET 21P                   |                            |                    |        |          |          |             |        |
| *1-564-518-11                             | PLUG, CONNECTOR 3P         |                    |        |          |          |             |        |
| *1-564-524-11                             | PLUG, CONNECTOR 9P         |                    |        |          |          |             |        |
| *1-564-527-11                             | PLUG, CONNECTOR 12P        |                    |        |          |          |             |        |
| *1-566-641-11                             | CONNECTOR, HINGE (TAB) 18P |                    |        |          |          |             |        |

J1

| REF. NO.    | PART NO.     | DESCRIPTION  | REMARK   | REF. NO. | PART NO. | DESCRIPTION | REMARK       |                      |     |      |  |  |  |
|-------------|--------------|--------------|----------|----------|----------|-------------|--------------|----------------------|-----|------|--|--|--|
| <CAPACITOR> |              |              |          |          |          |             |              |                      |     |      |  |  |  |
| C203        | 1-124-925-11 | ELECT        | 2.2MF    | 20%      | 50V      | C1436       | I-163-009-11 | CERAMIC CHIP 0.001MF | 10% | 50V  |  |  |  |
| C205        | 1-124-927-11 | ELECT        | 4.7MF    | 20%      | 50V      | C1437       | I-163-009-11 | CERAMIC CHIP 0.001MF | 10% | 50V  |  |  |  |
| C206        | 1-124-925-11 | ELECT        | 2.2MF    | 20%      | 50V      | C1438       | I-106-367-00 | MYLAR 0.01MF         | 10% | 400V |  |  |  |
| C207        | 1-124-927-11 | ELECT        | 4.7MF    | 20%      | 50V      | C1439       | I-106-367-00 | MYLAR 0.01MF         | 10% | 400V |  |  |  |
| C213        | 1-126-233-11 | ELECT        | 22MF     | 20%      | 50V      | C1440       | I-123-875-11 | ELECT 10MF           | 20% | 50V  |  |  |  |
| C214        | 1-106-363-00 | MYLAR        | 0.0068MF | 10%      | 400V     | C1441       | I-123-875-11 | ELECT 10MF           | 20% | 50V  |  |  |  |
| C217        | 1-106-363-00 | MYLAR        | 0.0068MF | 10%      | 400V     | C1442       | I-106-220-00 | MYLAR 0.1MF          | 10% | 100V |  |  |  |
| C218        | 1-106-375-12 | MYLAR        | 0.022MF  | 10%      | 250V     | C1443       | I-106-220-00 | MYLAR 0.1MF          | 10% | 100V |  |  |  |
| C219        | 1-106-375-12 | MYLAR        | 0.022MF  | 10%      | 250V     | C1444       | I-124-910-11 | ELECT 4.7MF          | 20% | 50V  |  |  |  |
| C220        | 1-108-620-11 | MYLAR        | 0.0033MF | 10%      | 100V     | C1445       | I-102-824-00 | CERAMIC 470PF        | 5%  | 50V  |  |  |  |
| C221        | 1-108-620-11 | MYLAR        | 0.0033MF | 10%      | 100V     | C1446       | I-102-824-00 | CERAMIC 470PF        | 5%  | 50V  |  |  |  |
| C222        | 1-106-385-00 | MYLAR        | 0.056MF  | 10%      | 100V     | C1501       | I-124-927-11 | ELECT 4.7MF          | 20% | 50V  |  |  |  |
| C223        | 1-106-385-00 | MYLAR        | 0.056MF  | 10%      | 100V     | C1502       | I-124-791-11 | ELECT 1MF            | 20% | 50V  |  |  |  |
| C224        | 1-106-367-00 | MYLAR        | 0.01MF   | 10%      | 400V     | C1503       | I-108-614-11 | MYLAR 0.001MF        | 10% | 100V |  |  |  |
| C225        | 1-136-173-00 | FILM         | 0.47MF   | 5%       | 50V      | C1504       | I-124-910-11 | ELECT 4.7MF          | 20% | 50V  |  |  |  |
| C226        | 1-136-173-00 | FILM         | 0.47MF   | 5%       | 50V      | C1505       | I-106-383-00 | MYLAR 0.047MF        | 10% | 100V |  |  |  |
| C227        | 1-106-375-12 | MYLAR        | 0.022MF  | 10%      | 250V     | C1506       | I-108-620-11 | MYLAR 0.0033MF       | 10% | 100V |  |  |  |
| C228        | 1-106-379-12 | MYLAR        | 0.033MF  | 10%      | 250V     | C1507       | I-108-620-11 | MYLAR 0.0033MF       | 10% | 100V |  |  |  |
| C229        | 1-106-371-00 | MYLAR        | 0.015MF  | 10%      | 400V     | C1508       | I-124-791-11 | ELECT 1MF            | 20% | 50V  |  |  |  |
| C230        | I-106-371-00 | MYLAR        | 0.015MF  | 10%      | 400V     | C1509       | I-124-791-11 | ELECT 1MF            | 20% | 50V  |  |  |  |
| C231        | 1-124-902-00 | ELECT        | 0.47MF   | 20%      | 50V      | C1510       | I-124-927-11 | ELECT 4.7MF          | 20% | 50V  |  |  |  |
| C232        | 1-123-875-11 | ELECT        | 10MF     | 20%      | 50V      | C1511       | I-124-927-11 | ELECT 1MF            | 20% | 50V  |  |  |  |
| C233        | 1-163-005-11 | CERAMIC CHIP | 470PF    | 10%      | 50V      | C1512       | I-106-363-00 | MYLAR 0.0068MF       | 10% | 400V |  |  |  |
| C234        | 1-163-005-11 | CERAMIC CHIP | 470PF    | 10%      | 50V      | C1513       | I-163-105-00 | CERAMIC CHIP 33PF    | 5%  | 50V  |  |  |  |
| C235        | 1-163-005-11 | CERAMIC CHIP | 470PF    | 10%      | 50V      | <CONNECTOR> |              |                      |     |      |  |  |  |
| C236        | 1-163-005-11 | CERAMIC CHIP | 470PF    | 10%      | 50V      | CN1401      | 1-565-838-11 | PIN JACK BLOCK 2P    |     |      |  |  |  |
| C237        | 1-124-902-00 | ELECT        | 0.47MF   | 20%      | 50V      | <DIODE>     |              |                      |     |      |  |  |  |
| C238        | 1-163-125-00 | CERAMIC CHIP | 220PF    | 5%       | 50V      | D201        | 8-719-929-16 | DIODE HZS9.1NB3      |     |      |  |  |  |
| C239        | 1-126-103-11 | ELECT        | 470MF    | 20%      | 16V      | D202        | 8-719-929-16 | DIODE HZS9.1NB3      |     |      |  |  |  |
| C240        | 1-163-018-00 | CERAMIC CHIP | 0.0056MF | 10%      | 50V      | D205        | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C241        | 1-163-018-00 | CERAMIC CHIP | 0.0056MF | 10%      | 50V      | D206        | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C242        | 1-163-033-00 | CERAMIC CHIP | 0.022MF  |          |          | D1401       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C243        | 1-163-033-00 | CERAMIC CHIP | 0.022MF  |          |          | D1403       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C244        | 1-163-033-00 | CERAMIC CHIP | 0.022MF  |          |          | D1404       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C245        | 1-163-033-00 | CERAMIC CHIP | 0.022MF  |          |          | D1405       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1401       | 1-123-875-11 | ELECT        | 10MF     | 20%      | 50V      | D1407       | 8-719-929-20 | DIODE HZS10NB3       |     |      |  |  |  |
| C1402       | 1-126-103-11 | ELECT        | 470MF    | 20%      | 16V      | D1408       | 8-719-929-16 | DIODE HZS9.1NB3      |     |      |  |  |  |
| C1403       | 1-163-003-11 | CERAMIC CHIP | 330PF    | 10%      | 50V      | D1409       | 8-719-929-16 | DIODE HZS9.1NB3      |     |      |  |  |  |
| C1404       | 1-106-220-00 | MYLAR        | 0.1MF    | 10%      | 100V     | D1410       | 8-719-929-16 | DIODE HZS9.1NB3      |     |      |  |  |  |
| C1405       | 1-136-017-00 | CERAMIC CHIP | 0.0047MF |          |          | D1415       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1406       | 1-106-220-00 | MYLAR        | 0.1MF    | 10%      | 100V     | D1418       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1407       | 1-124-910-11 | ELECT        | 47MF     | 20%      | 50V      | D1419       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1408       | 1-124-122-11 | ELECT        | 100MF    | 20%      | 50V      | D1420       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1409       | 1-126-233-11 | ELECT        | 22MF     | 20%      | 50V      | D1421       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1410       | 1-123-875-11 | ELECT        | 10MF     | 20%      | 50V      | D1422       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1411       | 1-123-875-11 | ELECT        | 10MF     | 20%      | 50V      | D1423       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1412       | 1-124-910-11 | ELECT        | 47MF     | 20%      | 50V      | D1424       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1413       | 1-124-910-11 | ELECT        | 47MF     | 20%      | 50V      | D1425       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1414       | 1-123-875-11 | ELECT        | 10MF     | 20%      | 50V      | D1426       | 8-719-929-08 | DIODE HZS7.5NB3      |     |      |  |  |  |
| C1415       | 1-106-220-00 | MYLAR        | 0.1MF    | 10%      | 100V     | D1501       | 8-719-300-33 | DIODE RU-3AM         |     |      |  |  |  |
| C1416       | 1-106-220-00 | MYLAR        | 0.1MF    | 10%      | 100V     | D1502       | 8-719-911-19 | DIODE ISS119         |     |      |  |  |  |
| C1417       | 1-124-120-11 | ELECT        | 220MF    | 20%      | 16V      | D1503       | 8-719-911-19 | DIODE ISS119         |     |      |  |  |  |
| C1418       | 1-163-003-11 | CERAMIC CHIP | 330PF    | 10%      | 50V      | D1504       | 8-719-911-19 | DIODE ISS119         |     |      |  |  |  |
| C1419       | 1-163-003-11 | CERAMIC CHIP | 330PF    | 10%      | 50V      | D1505       | 8-719-911-19 | DIODE ISS119         |     |      |  |  |  |
| C1425       | 1-124-902-00 | ELECT        | 0.47MF   | 20%      | 50V      | D1506       | 8-719-929-79 | DIODE HZS36NB4       |     |      |  |  |  |
| C1426       | 1-124-902-00 | ELECT        | 0.47MF   | 20%      | 50V      | D1507       | 8-719-911-19 | DIODE ISS119         |     |      |  |  |  |
| C1427       | 1-136-017-00 | CERAMIC CHIP | 0.0047MF |          |          | D1510       | 8-719-911-19 | DIODE ISS119         |     |      |  |  |  |
| C1428       | 1-136-017-00 | CERAMIC CHIP | 0.0047MF |          |          |             |              |                      |     |      |  |  |  |
| C1429       | 1-136-017-00 | CERAMIC CHIP | 0.0047MF |          |          |             |              |                      |     |      |  |  |  |
| C1430       | 1-163-003-11 | CERAMIC CHIP | 330PF    | 10%      | 50V      |             |              |                      |     |      |  |  |  |
| C1431       | 1-126-529-11 | ELECT        | 0.47MF   | 20%      | 50V      |             |              |                      |     |      |  |  |  |
| C1432       | 1-124-902-00 | ELECT        | 0.47MF   | 20%      | 50V      |             |              |                      |     |      |  |  |  |
| C1433       | 1-124-122-11 | ELECT        | 100MF    | 20%      | 50V      |             |              |                      |     |      |  |  |  |

| REF. NO.     | PART NO.     | DESCRIPTION            | REMARK   | REF. NO. | PART NO.     | DESCRIPTION | REMARK        |
|--------------|--------------|------------------------|----------|----------|--------------|-------------|---------------|
| <IC>         |              |                        |          |          |              |             |               |
| IC201        | 8-759-013-17 | IC TDA6200             |          | R1401    | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W   |
| IC1401       | 8-752-032-27 | IC CXA1114P            |          | R1402    | 1-216-170-00 | METAL GLAZE | 68 5% 1/8W    |
| IC1402       | 8-759-946-32 | IC TEA2014A            |          | R1403    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| IC1403       | 8-759-040-53 | IC MC14053BCP          |          | R1404    | 1-216-178-00 | METAL GLAZE | 150 5% 1/8W   |
| IC1501       | 8-759-942-16 | IC TEA2031A            |          | R1405    | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| <TRANSISTOR> |              |                        |          |          |              |             |               |
| Q201         | 8-729-271-22 | TRANSISTOR 2SC2712-G   |          | R1407    | 1-216-113-00 | METAL GLAZE | 470K 5% 1/10W |
| Q202         | 8-729-271-22 | TRANSISTOR 2SC2712-G   |          | R1408    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| Q1401        | 8-729-216-22 | TRANSISTOR 2SA1162-G   |          | R1409    | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W  |
| Q1402        | 8-729-271-22 | TRANSISTOR 2SC2712-G   |          | R1410    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| Q1403        | 8-729-119-78 | TRANSISTOR 2SC2785-HFE |          | R1411    | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W  |
| Q1404        | 8-729-173-38 | TRANSISTOR 2SA733-K    |          | R1412    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| <RESISTOR>   |              |                        |          |          |              |             |               |
| R201         | 1-216-079-00 | METAL GLAZE 18K        | 5% 1/10W | R1413    | 1-216-113-00 | METAL GLAZE | 470K 5% 1/10W |
| R202         | 1-216-206-00 | METAL GLAZE 2.2K       | 5% 1/8W  | R1414    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| R203         | 1-216-075-00 | METAL GLAZE 12K        | 5% 1/10W | R1415    | 1-216-083-00 | METAL GLAZE | 27K 5% 1/10W  |
| R204         | 1-216-085-00 | METAL GLAZE 33K        | 5% 1/10W | R1416    | 1-216-083-00 | METAL GLAZE | 27K 5% 1/10W  |
| R205         | 1-216-085-00 | METAL GLAZE 33K        | 5% 1/10W | R1417    | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W   |
| R206         | 1-216-061-00 | METAL GLAZE 3.3K       | 5% 1/10W | R1418    | 1-247-738-11 | CARBON      | 82 5% 1/2W F  |
| R207         | 1-216-061-00 | METAL GLAZE 3.3K       | 5% 1/10W | R1422    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R208         | 1-216-077-00 | METAL GLAZE 15K        | 5% 1/10W | R1423    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| R209         | 1-216-081-00 | METAL GLAZE 22K        | 5% 1/10W | R1424    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| R210         | 1-216-077-00 | METAL GLAZE 15K        | 5% 1/10W | R1425    | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W   |
| R211         | 1-216-097-00 | METAL GLAZE 100K       | 5% 1/10W | R1426    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R212         | 1-216-081-00 | METAL GLAZE 22K        | 5% 1/10W | R1427    | 1-216-001-00 | METAL GLAZE | 10 5% 1/10W   |
| R213         | 1-216-077-00 | METAL GLAZE 15K        | 5% 1/10W | R1428    | 1-216-113-00 | METAL GLAZE | 470K 5% 1/10W |
| R214         | 1-216-033-00 | METAL GLAZE 220        | 5% 1/10W | R1429    | 1-216-113-00 | METAL GLAZE | 470K 5% 1/10W |
| R215         | 1-216-081-00 | METAL GLAZE 22K        | 5% 1/10W | R1430    | 1-216-170-00 | METAL GLAZE | 68 5% 1/8W    |
| R216         | 1-216-081-00 | METAL GLAZE 22K        | 5% 1/10W | R1431    | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W  |
| R217         | 1-216-077-00 | METAL GLAZE 15K        | 5% 1/10W | R1432    | 1-216-041-00 | METAL GLAZE | 470 5% 1/10W  |
| R218         | 1-216-033-00 | METAL GLAZE 220        | 5% 1/10W | R1433    | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  |
| R219         | 1-216-073-00 | METAL GLAZE 10K        | 5% 1/10W | R1434    | 1-249-393-11 | CARBON      | 10 5% 1/4W F  |
| R220         | 1-216-057-00 | METAL GLAZE 2.2K       | 5% 1/10W | R1437    | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R221         | 1-216-041-00 | METAL GLAZE 470        | 5% 1/10W | R1440    | 1-216-045-00 | METAL GLAZE | 680 5% 1/10W  |
| R222         | 1-216-041-00 | METAL GLAZE 470        | 5% 1/10W | R1441    | 1-216-045-00 | METAL GLAZE | 680 5% 1/10W  |
| R223         | 1-216-049-00 | METAL GLAZE 1K         | 5% 1/10W | R1442    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| R224         | 1-216-049-00 | METAL GLAZE 1K         | 5% 1/10W | R1443    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| R225         | 1-216-049-00 | METAL GLAZE 1K         | 5% 1/10W | R1444    | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  |
| R226         | 1-216-049-00 | METAL GLAZE 1K         | 5% 1/10W | R1445    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R227         | 1-216-033-00 | METAL GLAZE 220        | 5% 1/10W | R1452    | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W   |
| R228         | 1-216-033-00 | METAL GLAZE 220        | 5% 1/10W | R1453    | 1-216-049-00 | METAL GLAZE | 1K 5% 1/10W   |
| R229         | 1-216-075-00 | METAL GLAZE 12K        | 5% 1/10W | R1454    | 1-216-180-00 | METAL GLAZE | 180 5% 1/8W   |
| R230         | 1-216-079-00 | METAL GLAZE 18K        | 5% 1/10W | R1455    | 1-216-180-00 | METAL GLAZE | 180 5% 1/8W   |
| R231         | 1-216-073-00 | METAL GLAZE 10K        | 5% 1/10W | R1457    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R232         | 1-216-073-00 | METAL GLAZE 10K        | 5% 1/10W | R1459    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R233         | 1-216-057-00 | METAL GLAZE 2.2K       | 5% 1/10W | R1460    | 1-216-065-00 | METAL GLAZE | 4.7K 5% 1/10W |
| R234         | 1-216-057-00 | METAL GLAZE 2.2K       | 5% 1/10W | R1461    | 1-216-190-00 | METAL GLAZE | 470 5% 1/8W   |
| R240         | 1-216-033-00 | METAL GLAZE 220        | 5% 1/10W | R1462    | 1-216-057-00 | METAL GLAZE | 2.2K 5% 1/10W |
| R231         | 1-216-073-00 | METAL GLAZE 10K        | 5% 1/10W | R1463    | 1-216-055-00 | METAL GLAZE | 1.8K 5% 1/10W |
| R232         | 1-216-073-00 | METAL GLAZE 10K        | 5% 1/10W | R1464    | 1-216-059-00 | METAL GLAZE | 2.7K 5% 1/10W |
| R233         | 1-216-057-00 | METAL GLAZE 2.2K       | 5% 1/10W | R1465    | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W   |
| R234         | 1-216-057-00 | METAL GLAZE 2.2K       | 5% 1/10W | R1466    | 1-216-033-00 | METAL GLAZE | 220 5% 1/10W  |
| R240         | 1-216-033-00 | METAL GLAZE 220        | 5% 1/10W | R1467    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R241         | 1-216-091-00 | METAL GLAZE 56K        | 5% 1/10W | R1468    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R242         | 1-216-091-00 | METAL GLAZE 56K        | 5% 1/10W | R1469    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R243         | 1-216-075-00 | METAL GLAZE 12K        | 5% 1/10W | R1470    | 1-216-025-00 | METAL GLAZE | 100 5% 1/10W  |
| R244         | 1-216-067-00 | METAL GLAZE 5.6K       | 5% 1/10W | R1471    | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W   |
| R245         | 1-216-075-00 | METAL GLAZE 12K        | 5% 1/10W | R1472    | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W   |
| R246         | 1-216-067-00 | METAL GLAZE 5.6K       | 5% 1/10W | R1473    | 1-216-023-00 | METAL GLAZE | 82 5% 1/10W   |
| R247         | 1-216-075-00 | METAL GLAZE 12K        | 5% 1/10W | R1474    | 1-216-113-00 | METAL GLAZE | 470K 5% 1/10W |
| R248         | 1-216-067-00 | METAL GLAZE 5.6K       | 5% 1/10W | R1476    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| R249         | 1-216-075-00 | METAL GLAZE 12K        | 5% 1/10W | R1477    | 1-216-089-00 | METAL GLAZE | 47K 5% 1/10W  |
| R250         | 1-216-067-00 | METAL GLAZE 5.6K       | 5% 1/10W |          |              |             |               |

J1 J2 IFG

IFG

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

| REF. NO.            | PART NO.     | DESCRIPTION          | REMARK        |
|---------------------|--------------|----------------------|---------------|
| <COIL>              |              |                      |               |
| L1                  | 1-408-410-00 | INDUCTOR             | 12UH          |
| L2                  | 1-408-410-00 | INDUCTOR             | 12UH          |
| L3                  | 1-410-064-11 | INDUCTOR             | 2.7MMH        |
| L4                  | 1-408-421-00 | INDUCTOR             | 100UH         |
| L5                  | 1-408-421-00 | INDUCTOR             | 100UH         |
| <TRANSISTOR>        |              |                      |               |
| Q2                  | 8-729-901-00 | TRANSISTOR DTC124EK  |               |
| Q3                  | 8-729-216-22 | TRANSISTOR 2SA1162-G |               |
| Q4                  | 8-729-901-00 | TRANSISTOR DTC124EK  |               |
| <RESISTOR>          |              |                      |               |
| JC8                 | 1-216-296-00 | METAL GLAZE          | 0 5% 1/8W     |
| JC10                | 1-216-296-00 | METAL GLAZE          | 0 5% 1/8W     |
| R1                  | 1-216-045-00 | METAL GLAZE          | 680 5% 1/10W  |
| R2                  | 1-216-043-00 | METAL GLAZE          | 560 5% 1/10W  |
| R3                  | 1-216-043-00 | METAL GLAZE          | 560 5% 1/10W  |
| R5                  | 1-216-045-00 | METAL GLAZE          | 680 5% 1/10W  |
| R6                  | 1-216-043-00 | METAL GLAZE          | 560 5% 1/10W  |
| R7                  | 1-216-043-00 | METAL GLAZE          | 560 5% 1/10W  |
| R9                  | 1-216-073-00 | METAL GLAZE          | 10K 5% 1/10W  |
| R10                 | 1-216-077-00 | METAL GLAZE          | 15K 5% 1/10W  |
| R11                 | 1-216-097-00 | METAL GLAZE          | 100K 5% 1/10W |
| R12                 | 1-216-097-00 | METAL GLAZE          | 100K 5% 1/10W |
| R15                 | 1-216-059-00 | METAL GLAZE          | 2.7K 5% 1/10W |
| R16                 | 1-216-097-00 | METAL GLAZE          | 100K 5% 1/10W |
| R17                 | 1-216-097-00 | METAL GLAZE          | 100K 5% 1/10W |
| R18                 | 1-216-063-00 | METAL GLAZE          | 3.9K 5% 1/10W |
| R19                 | 1-216-097-00 | METAL GLAZE          | 100K 5% 1/10W |
| R20                 | 1-216-075-00 | METAL GLAZE          | 12K 5% 1/10W  |
| R22                 | 1-216-099-00 | METAL GLAZE          | 120K 5% 1/10W |
| R24                 | 1-216-089-00 | METAL GLAZE          | 47K 5% 1/10W  |
| R25                 | 1-216-077-00 | METAL GLAZE          | 15K 5% 1/10W  |
| <VARIABLE RESISTOR> |              |                      |               |
| RV1                 | 1-238-016-11 | RES, ADJ, CARBON 10K |               |
| RV2                 | 1-238-019-11 | RES, ADJ, CARBON 47K |               |

\*\*\*\*\*  
ACCESORIES AND PACKING MATERIALS  
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| PART NO.      | DESCRIPTION                | REMARK |
|---------------|----------------------------|--------|
| 1-465-363-11  | COMMANDER, REMOTE (RM-689) |        |
| 4-200-139-11  | MANUAL, INSTRUCTION        |        |
| *4-200-172-01 | CUSHION (UPPER) (ASSY)     |        |
| *4-200-173-01 | CUSHION (LOWER) (ASSY)     |        |
| *4-200-174-01 | INDIVIDUAL CARTON          |        |
| *4-380-340-01 | BAG, PROTECTION            |        |

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MISCELLANEOUS  
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- $\Delta$  1-426-383-11 COIL DEMAGNETIZATION
- $\Delta$  1-451-295-11 DEFLECTION YOKE (Y21PFA2)
- 1-452-032-00 MAGNET, DISK; 10MM  $\phi$
- 1-452-094-00 MAGNET, ROTATABLE DISK; 15MM  $\phi$
- 1-452-277-00 MAGNET, BMC

SPEAKER

- $\Delta$  1-575-487-11 CORD, POWER (WITH NOISE FILTER)

- V901  $\Delta$  8-738-753-05 PICTURE TUBE (A51JXH60X)